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Invisible Stronghold: The Role of Religion in the Psychological Well-being of Black Americans.

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Invisible Stronghold: The Role of Religion in the Psychological Well-being of Black Americans.

by

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Dedication

This is for my family and friends. Thank you for seeing me through to the finish.

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Invisible Stronghold: The Role of Religion in the Psychological Well-being of Black Americans.

Andrea K. Henderson-Platt, Ph.D.

The University of Texas at Austin, 2012

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For decades now researchers and clinicians have exhibited mounting interest in understanding the mental health status of Black Americans and the socio-cultural resources that influence it. Due to its historic and continued importance in the lives of African Americans, evidence suggests that the patterns of religious expression among Black Americans have a measurable impact on a variety of physical and mental health outcomes. Nevertheless, this work is not without its limitations, including its limited focus on just the direct effects of religion on health as well as ignoring the issue of ethnic heterogeneity among U.S. Blacks.

Specifically, this work consists of three discrete chapters examining the multifaceted influence of religious involvement and stress on three dimensions of psychological well-being among Black Americans. Using two conceptual models from the life stress paradigm, this work addresses two research questions: (a) Does religion involvement offset, either partly or entirely, the effect of stress on the psychological well-being of Black Americans?, and (b) Does religious involvement buffer (or mitigate) the deleterious effects of stress on the psychological well-being of Black Americans? The questions are assessed using multiple methodologies and data from two large-scale surveys with nationally representative samples of Black Americans.

The results reveal that religion plays a unique role in fostering the psychological well-being of Black Americans and may be particularly salient in the face of stress. Specifically, in the first study, religious attendance and religious support are positively associated with the life satisfaction of African Americans, while subjective religiosity buffers the harmful effects of family-work conflict on life satisfaction.

The second study examines the interplay of religious involvement, childhood adversity, and self-perception. The results reveal that religious attendance and subjective religiousness do indeed protect against the deleterious effects childhood adversity on psychological well-being. However, other aspects of religious involvement, specifically religious upbringing, exude the opposite effect.

The final chapter, on religion, racial discrimination and substance abuse, finds religious involvement deters substance abuse among Black Americans, however little support was found for religion in mitigating the effects of discrimination on substance abuse. Study implications and future directions are discussed.

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CHAPTER I: INTRODUCTION

For decades now researchers and clinicians have exhibited mounting interest in understanding the mental health status of Black Americans in the United States. Despite historical and contemporary work in this area, our understanding of this relationship is still decidedly mixed. Some of the confusion can be attributed to the quality of early research which relied heavily on non-generalizable accounts, including anecdotes and case studies of patients seeking treatment in institutionalized settings (Vega and Rumbaut 1991). However, more recent studies employing field surveys of the general population have found several worthwhile results. First, African Americans report significantly higher levels of depressive and anxiety symptoms and somatization than whites, particularly in the face of stress (Blazer, Williams, Mohammed, Leavell and Collins 2010; Landrine and Klonoff 1996; Soto, Dawson-Andoh and Belue 2011; Williams 2003). For example, results by Williams and colleagues (2007) from the National Survey of American Life, the largest study of mental health in the US Black population, found a chronicity of major depressive disorder in 56.3% of African Americans respondents, compared with 38.6% of non-Hispanic Whites.

Second, while African Americans report higher levels of some *negative* psychological functioning, the opposite has been found on facets of self-perception, including self-esteem and locus of control (Hughes and Demo 1989; Porter and Washington 1979; Rosenberg 1979; Rosenberg and Simmons 1971; Taylor and Walsh 1979). Most nationally representative surveys find that African Americans report higher levels of self-perception, including self-esteem, self-mastery, and self-attractiveness.

Moreover, evidence suggests that aspects of self-perception influence a wide range of social and behavioral outcomes, including alcohol and drug use, educational outcomes and occupational status and improved mental health and well-being (Aneshensel 1992; Blash and Unger 1995; Ellison 1993; Mirowsky and Ross 2003; Mizell 1999a, 1999b; Pearlin, Lieberman, Menaghan and Mullan 1981).

Third, because mental health is frequently stigmatized and misunderstood in the African American community, Blacks often tend to rely on family and/or other social institutions for emotional support, forgoing professional mental health services (Blank, Mahmood Fox and Guterbock 2002; Hu, Snowden and Jerrell 1992; Kuno and Rothbard 2005; Levin 1984; Snowden and Holschuh 1992). One of the primary institutions many African Americans turn to in time of need is religion (Chatters, Taylor, Lincoln and Schroepfer 2002; Neighbors, Musick and Williams 1998; Ward, Clark and Heidrich 2009).

For several decades now, there has been a growing body of work which examines the influence of religion on health and well-being (Ellison and Levin 1998; Koenig, Larson and Mccullough 200l). Much of this work suggests that religious involvement may promote increased happiness, life satisfaction and general well-being (Ellison and Gay 1990; Ellison and Hummer 2010; Hummer, Rogers, Nam and Ellison 1999; Krause 2003). Moreover, beginning with W.E.B. Dubois in 1903, social scientists have had an interest in the distinct role of religion and spirituality in the lives of African Americans. Employing a variety of methodologies – e.g., qualitative, regional and national survey approaches – scholars have focused on an array of topics, including: (1) patterns of

involvement in religious life among African Americans; (2) the nature and context of African American religious experiences; and (3) the function of religious institutions and leadership in the Black community. Furthermore, recent scholarship has begun to explore the role of religion and spiritually in the health and family-life patterns of African Americans (Ellison, Hummer, Burdette and Benjamins 2010; Taylor, Chatters and Levin 2004; Taylor, Jackson and Chatters 1997; Wilcox and Wolfinger 2008). Much of this research suggests that religious involvement has a salutary effect on the health and family outcomes of African Americans.

In addition to this literature that examines the direct effects of religion on health; several studies have examined religious involvement and mental health among individuals dealing with acute and chronic stressors or the moderating (buffering) role of religion in the face of stress (Bierman 2006; Ellison, Boardman, Williams and Jackson 2001; Wang and Patten 2002; Williams et al. 1991; Wink, Dillon and Larsen 2005). More specifically, research on religious buffering reveal that religious involvement does indeed blunt the negative effect of stress on mental health, including the effects of chronic health problems on depression (Wink, Dillon and Larsen 2005), financial strain on mental health (Ellison, Boardman, Williams and Jackson 2001) and role strain on depression (Mirola 1999). However, despite this growing body of work, there remains a dearth of research examining the interplay of religion in various arenas of social life, including health and well-being, among ethnically diverse populations, as well as how religion may be a particularly salient for mitigating stress amongst marginalized communities of color.

The goal of this dissertation is to expand the literature on the religion-health connection among Black Americans. For my purposes Black Americans include Americans of African descent, as well as Afro-Caribbeans who defined themselves as racially Black, but who trace their ethnic heritage to a Caribbean country. Specifically, this dissertation is composed of three separate chapters that will explore the multifarious influence of religion (i.e., organizational, non-organizational and subjective religiosity) and stress on the psychological well-being of Black Americans.

In the following sections of this chapter I will briefly review past research and theory on two substantive areas used throughout this work: (a) the relationship between religion and health; and (b) the role of religion among African Americans and Afro-Caribbeans, specifically. However, I would like to begin by framing this work, which examines the relationship between religion, stress, and mental health solely among Black Americans, in a Critical Race lens that argues for the salient positioning of the Black experience in scholarship.

An Oppositional Voice: The Important Experience of Black Americans

Critical Race scholarship begins by highlighting the tension in mainstream research that claims racial and cultural neutrality, but improperly takes as a baseline norm white cultural patterns (Crensaw, Gotanda, Peller and Thomas 1995). In the implied objective, neutral and impersonal voice of mainstream scholarship, voices and experiences of persons of color are traditionally lost, at best, or pathologized, at worst. However, Critical Race theory turns mainstream scholarship on its head, by grounding scholarship in the "material, aesthetic, emotional and spiritual experiences of people of

color…and recounts perceptions, experiences and understandings of scholarship in ways that are primarily colored by the unique biography and history of persons of color" (Crensaw, Gotanda, Peller and Thomas 1995: 314). Because this dissertation solely examines the relationship between religion, stress and mental health amongst Black Americans, including native African Americans and Afro-Caribbeans, questions of legitimacy and accuracy have been raised: "How do we know these relationships are distinct amongst Black Americans?" However, the defense for exclusivity, or of analyzing intragroup differences among Black Americans, is by locating this work in the context of this larger ongoing dialogue used by Critical Race theorists: The life chances, experiences, and styles of African Americans are sufficiently and distinctively separate to warrant an examination of the Black experience with their own line of inquiry and empiricism.

THEORETICAL AND EMPIRICAL BACKGROUND

Religion and Health

The relationship between religion and health has received considerable attention by social scientists and the public health community. Much of this research finds that religiosity is a complex multi-dimensional phenomenon with several paths for influencing health (Ellison and Levin 1998; Koenig, Larson and Mccullough 2001). One approach popularized by Levin and colleagues (1995) distinguishes between three aspects of religious engagement: (a) organizational religious involvement; (b) non-organizational religious involvement; and (c) subjective religiousness. Several decades of work suggest that religion, when defined as a multi-dimensional construct that includes religious

involvement, subjective religious identity, and religious devotion (i.e., frequency of prayer, feelings of closeness to God), is linked with improved physical and mental well-being (Koenig, McCullough and Larson 2001). Moreover, mounting evidence suggests that multiple aspects of religious involvement are particularly beneficial for the health of African Americans (Ellison 1993; Ellison and Flannelly 2009; Krause 2002; Musick 1996).

How might religious involvement influence mental health? Using the three-dimensional factor structure of religion created by Levin and colleagues' (1995), a number of promising pathways linking religion and mental health have been identified. First, organizational religious involvement, generally measured through religious attendance, may influence health through regulating health-related conduct by discouraging certain risky behaviors. Through moral and ethical teachings, most religious communities encourage moderation while discouraging extreme risk-taking behaviors, such as alcohol and drug consumption and sexual promiscuity (Hoffman 2000; Miller, Davies and Greenwald 2000; Regnerus 2007). Religion may influence such behaviors through: (a) moral messages through formal means (e.g., sermons or official statements); (b) social sanctions – or ostracism – for violation of behavioral norms; and (c) shame and/or guilt due to internalization of religious values regarding such behaviors (Ellison and Levin 1998; Ellison, Hummer, Burdette and Benjamins 2010). Additionally, because religious communities teach and embody the general behavioral guidelines of temperance and conformity, religious individuals may be at a reduced risk for developing stressful circumstances that lead to poor health (Chatters 2000).

In addition to regulating lifestyle choices, religious communities are a central nexus for social integration and support. A wealth of research indicates that persons with larger and more supportive social networks tend to fare better on a range of mental health outcomes than their counterparts with fewer social resources (Cohen 2004; Krause 2002). Membership in a religious community brings together like-minded individuals who share faith commitments and values on a regular basis, and such settings offer fertile ground for cultivating friendships that may promote well-being (Ellison and George 1994). Additionally, religious institutions may provide various kinds of social support, including tangible aid (e.g., goods and services) and socio-emotional support (e.g., companionship) through both formal (e.g., services or outreach initiatives) and informal (e.g., sharing information, providing meals) means. Many religious communities offer formal programs or ministries targeted at enriching individuals, which include efforts to disseminate a wide range of information and services. In addition to such formal programs, many individuals seek pastoral counseling on a host of personal, family, and spiritual issues (Neighbors, Musick and Williams 1998). To the extent that religious communities serve their members through (in)formal support, this may be an important way religion promotes mental well-being. Religious activities (e.g., worship, Bible studies, and small group experiences) may offer participants an opportunity to disclose intimate, deeply personal issues in a climate of sympathy and trust (Wuthnow 1994). These features of congregational life may promote a sense of belonging, assistance and love (Ellison and Levin 1998); even as it reinforces personal faith, thereby strengthening

meaning systems through which individuals organize and interpret their affairs (Berger 1967; Williams et al. 1991).

Non-organizational religious involvement, or involvement in private religious pursuits such as prayer, meditation, Bible reading, or other personal spiritual practices, may also promote well-being. These behaviors lead many individuals to develop a close relationship with God, as well as help apply religious teachings to daily life (Pargament 1997). This close relationship with God may lead to a stronger meaning and purpose in life, which may include insights into prioritizing and perspective on life domains and events (Krause 2003). During difficult life circumstances, non-organizational practices such as prayer and Bible study, may also allow individuals to engage God on a routine basis for solace, comfort and guidance that may ease the burden of stressful events.

In addition, private facets of religion have been found to be an invaluable psychological resource for individuals during times of stress and strain as a means of coping and managing stressful situations (Pargament 1997; Pargament et al. 1990). For these persons, private religious involvement may alter an individual's perspective of a situation as an opportunity for spiritual growth or learning, or as a boarder part of a divine plan resulting in a positive worldview that is more optimistic and hopeful. Moreover, certain styles of coping – including collaboration with a divine other appears to bolster feelings of control (Pollner 1989; Ellison, Hummer, Burdette and Benjamins 2010), which enhances confidence in one's ability to manage difficult outcomes. These mechanisms suggest that religion may be a helpful component in fostering and maintaining mental health throughout the life-course.

Subjective religious identity may also exhibit a positive influence on mental health. Subjective aspects of religious involvement, generally defined as the personal importance or self-assessed strength of one's religious identity, may work by providing believers with an orientating framework for decision-making and conduct in many life domains (Burdette and Hill 2009; Schieman, Pudrovska and Milkie 2005). Indeed, individuals who look to their religious beliefs for structure and guidance find a comprehensive framework for interpreting and assigning significance to mundane affairs, chronic challenges and traumatic events. For these reasons, individuals who are more subjectively religious, or who receive a great deal of guidance from religion in their daily lives, may be less prone to psychological problems. Moreover, the expected emotional gains from subjective religiousness may be especially pronounced for individuals who are coping with both chronic and acute stressful events (Pargament 1997).

While there is strong evidence linking adult religious involvement and mental health, there is no clear answer regarding the influence of childhood religiousness on subsequent adult health outcomes. Nevertheless, religion, together with parents and peers, remains a primary socialization agent of children and adolescents (Regnerus 2007; Smith and Denton 2005). Religion performs a variety of important socialization functions, including acting as an internal and external social control mechanism (i.e., guilt and sanctions), as well as explicitly and implicitly reinforcing beliefs and attitudes that forbid some things while encouraging others (e.g., forgiveness and moderation). A growing body of research suggests that adolescent religious participation is negatively associated with risky health behaviors such as cigarette smoking, alcohol consumption,

and illicit drug use (Regnerus 2007; Smith and Denton 2005). Common explanations for these findings are that religion directly reduces risky behaviors because churches provide youth with moral guidance and/or with strong social networks that reinforce social norms (Smith and Denton 2005).

Is it possible that childhood religious experiences make a difference in adult health? Perhaps the beliefs and attitudes developed during childhood, conveyed through religious teachings and networks, shape beliefs and attitudes into adulthood, even in the face of acute and chronic stressors. Indeed, there is some evidence to suggest that childhood religiousness may have "a long arm," or far-reaching consequences, on adult outcomes. Results from Glass and Jacobs (2005) suggest that childhood religious affiliation has enduring influences on the family formation behavior and occupational attainment of American women, net of class background and region of country. Through any or all of these mechanisms, religious up-bringing might be expected to influence health in adulthood.

Religion in the Lives of African Americans

Since its reemergence during the 1960s, social scientists have explored religion's influence on diverse arenas of social life; including health, family, identity, and politics (Sherkat and Ellison 1999; Hadden 1987) This body of work suggests religion plays an important and influential role in these different domains. However, most scholars would agree that there remains a dearth of empirical work that looks at these differences across racial/ethnic lines. This limitation is largely attributed to the availability of data that allows researchers to examine these relationships across race and ethnicity. However,

several studies suggest that religion works "differently" for race-ethnic minorities, particularly African Americans (Ellison et al., 2010; Krause 2004; Ellison and Gay 1990). The distinct effect of religious beliefs, commitments, and institutions among African Americans, as compared with their White counterparts, is attributed to the unique role of religion in the Black community both in the historical and contemporary period. Indeed, there is growing evidence confirming the distinctive role and high importance of religious faith and practice among African Americans. The following provides the theoretical and empirical explanation for *why* and *how* religion works differently among African Americans.

Religion has played a distinctive role in the collective and individual lives of African-Americans. African American religiosity developed from, and in response to, a subjugated existence in the U.S. (Billingsley 1999). In the seminal work of Lincoln and Mamiya (1990), the authors conceptualize the religious and spiritual experience of African Americans as the "black sacred cosmos." According to the authors, the religious worldview of African Americans – or the black sacred cosmos - is distinct in its orientation and expression because it is based on *both*: (a) an African heritage, which populated the world in a plurality of powers, and (b) the inimitable experience of slavery in the US. The religious expression of Black Americans was – and is – unique, highlighting such qualities as freedom, justice and equality (Lincoln and Mamiya 1990).

Additionally, these scholars provide a useful conceptual framework for understanding the distinct features of Black religious tradition. Religion among African Americans has been described as being dialectic in nature or operating in two realms of

realities – the “spiritual” and “public” or the “privatistic” and the “communal” (Lincoln and Mamiya 1990; Billinsgley 1999). Like most religious traditions, Black religiosity is concerned with questions of transcendence and existential meaning. However, because it was founded in an experience of human bondage, Black religious expression has concerned itself with addressing the life conditions of its members, particularly in the spheres of education, politics, economics and struggle. The enduring emphasis on individual and community enfranchisement has secured Black religious expression and its institutions as an important and central character in the Black community.

A Socio-Historical Look at Black Religion

One of the few institutions to emerge from slavery, the Black Church has played a central role in helping Black Americans maintain and thrive in an environment of disadvantage and discrimination. Black religious institutions were pivotal in building individual and community resources, including schools, nurseries, and business. Moreover, the Civil Rights Movement during the 1960s solidified the place of the Black Church and its leadership in the conscience of Black Americans. Such legendary figures as Martin Luther King, Jr., Jesse Jackson, and Al Sharpton, have reshaped the role of the Black Church, as an institution, as well as its leadership in meeting the needs of the Black community (Thomas, Quinn, Billingsley and Caldwell 1994; Neighbors, Musick and Williams 1998). In fact, 82.2% of black respondents in a national survey stated that the church had had a beneficial influence on the circumstances of Blacks in America (Talyor, Chatters, and Levin 2004). For these reasons Blacks consider the Church an integral component of the Black community.

Historically, the Black Church consists of seven historically, independent religious traditions, including the African Methodist Episcopal (AME), African Methodist Episcopal Zion (AMEZ) and Church of God in Christ (COGIC) traditions (Lincoln and Mamayi 1990). However, African Americans can be found in predominately white institutions as well. Ellison, et al. (2010) suggests that there are a growing number of African Americans in non-traditional black denominations, including Seventh-day Adventists, Jehovah Witnesses, and Islam. Like other Americans, the percentage of religiously unaffiliated African American has been on the rise, particularly among young adults and residents of urban and non-southern regions (Ellison, Hummer, Burdette and Benjamin 2010; Sherkat 2001; Sherkat 2002). Nevertheless, religious involvement continues to be an integral part of Black identity.

Theologically, African Americans hold distinct ideas regarding the nature and commitment of God. For example, African American religious expression tends to emphasize God as a God of love, who is actively participating in the lives of His creation. Moreover, African American beliefs highlight a "survival theology," a perspective which addresses the healing, hope, and liberation of Black Americans because of their marginal position in U.S. (Maynard-Reid 2000; Ellison, Hummer, Burdette and Benjamins 2010). Moreover, and as previously stated, Black religious expression often embodies a communal orientation, with congregations serving as fictive kin as well as a system of social support. It is the distinct history and need of African Americans that underlies the theological and practical stance of the church.

Religious Involvement among Black Americans

There are key racial differences in respect to religious affiliation, practice and belief in the US. Compared to their White counterparts, African-Americans consistently report higher levels of virtually every aspect of religious practice and belief measured in large-scale survey data, including religious attendance, personal devotional practices, subjective religious salience and orthodox beliefs (Taylor, Chatters and Levin 2004; Krasue 2002; Ellison et al. 2010; Chatters, Bullard, Taylor, and Jackson 2009). Inter-group variability suggests: women (versus men), older adults (versus younger persons), and Southern and rural residents (versus non-southern and urban) express higher levels of religiosity (Taylor, Chatters, and Levin 2004). What might explain such high rates of religious involvement among African Americans? Ellison and Sherkat (1995) suggest religious involvement among African Americans is a "semi-involuntary" institution. More specifically, religious choices are responsive to a variety of social influences, including social sanctions, empathy and example setting (Sherkat 1997). Historically, due to the limited opportunity afforded to African Americans in the U.S. – e.g., the Jim Crow South and redlining in the North – churches were one of the few institutions where African Americans could achieve status, leadership and respectability, particularly in the rural South. The authors suggest that not only was the church a place of worship, but also an agent of social legitimacy in the Black community (Ellison and Sherkat 1995; Hunt and Hunt 2001).

Religion among Afro-Caribbeans

The Black Caribbean population in the United States increased 67 percent from 1990 to 2000 (Logan and Deane 2003). Caribbean Blacks represent roughly 4.5% of the Black population overall. Despite the growth of the Black foreign-born population, researchers have largely ignored the issue of ethnic heterogeneity within the Black racial category. The use of the monolithic category "African American" obscures the growing diversity among Blacks in the U.S. As a consequence, very little is known about Caribbean Blacks in general. The two exceptions being: (a) Waters's (1999) ethnographic study of Caribbean Blacks in Brooklyn, New York; and (b) the growing body of work that has emerged from scholars using the National Survey of American Life (NSAL), which is the first national survey of Afro-Caribbeans. In *Black Identities*, Water's (1999) notes that the church plays a prominent role in Black Caribbean life and that Caribbean Blacks are often members of ethnically identified congregations whose membership may be exclusively Black Caribbean or composed of individuals from a particular country. Moreover, Waters (1999) suggests that Black Caribbean churches aid members in the migration process. Religious institutions have facilitated the relocation and resettlement of recent arrivals, provided resources for community groups and organizations, and served as arbiters in the assimilation process (Chatters, Taylor, Bullard and Jackson 2009). Once settled, churches may provide spiritual and economic support to congregants, help to build and strengthen relationships among immigrants, and provide a context for intergenerational family interaction and socialization.

Comparing Intragroup Difference in Religious Involvement

In several recent studies examining race/ethnic differences in levels of organizational, non-organizational and subjective religiosity among a national sample of African-Americans, Black Caribbeans and non-Hispanic Whites, the authors found that Black Caribbeans have significantly higher levels of religious involvement (i.e., including but not limited to attendance, consumption of religious materials, and religious salience, etc) than non-Hispanic Whites, even after controlling for possible sociodemographic correlates (Chatters, Bullard, Taylor and Jackson 2009). However, the differences between African Americans and Caribbean Blacks are less striking. The results indicate that only on 4 of 12 indicators – church membership, participation in church activities, reading religious materials and requesting prayer from others – did African Americans report higher levels of religious involvement (Chatters, Bullard, Taylor and Jackson 2009).

In an effort to examine intragroup differences among Black American religious involvement, Table 1.1 presents ANOVA models, estimated using general linear models (GLM) procedure in SAS, of religious involvement for African-Americans and Black Caribbeans. These data come from the National Survey of American Life (NSAL), a nationally representative sample of African Americans, Afro-Caribbeans and non-Hispanic Whites. The results reveal several important findings: among Black Americans 8 of the 11 items are significantly different – the only exceptions being (a) frequency of prayer, (b) subjective spirituality, and (c) looking to God for strength. These results

Table 1.1: Unadjusted Mean Variations in Religious Involvement Variables between Black Americans

Religious Involvement	Range	African American	Caribbean Black
Organizational Participation			
Attendance	1-6	3.87[a]	3.78
Church Member	0-1	.62[a]	0.47
Non-organizational Religious Participation			
Prayer	1-6	5.64[a]	5.61
Request Prayer from Others	1-6	3.77[a]	3.28
Subjective Religiosity			
Importance of religion growing up	1-4	3.61[a]	3.66
Religious Salience	1-4	3.75[a]	3.62
Subjective Religiosity	1-4	3.16[a]	3.08
Spiritual Salience	1-4	3.78[a]	3.72
Subjective Spirituality	1-4	3.33[a]	3.29
Religious Coping			
Look to God for strength	1-4	3.87[a]	3.84
Importance of prayer in stressful times	1-4	3.87[a]	3.82

Note: Data come from the NSAL.
[a]=$p<.001$ vs. Caribbean Black

suggest that religion continues to be an integral part of the contemporary Black experience, regardless of ethnic/national background.

ANALYTICAL STRATEGY: OFFSETTING & STRESS-BUFFERING MODEL

Among social scientists, the stress process has become defined by three major components: sources of stress, mediators of stress and consequences of stress (Pearlin, Menaghan, Lieberman and Mullan 1981). To begin, in the search for sources of stress, considerable interest has been directed to the role life events and chronic life strains. The impact of these events brings about stress by exacerbating life strains and diminishing a sense of self-worth and mastery. Proposed mediators in the stress process include the resources, perceptions and behaviors individuals have to handle and cope with the harmful effects of stressful events. These resources, both social and psychological, may alter or mediate the difficult conditions of stressful events. The two most widely studied resources include social support and coping. In regards to social resources, access to individuals, groups and organizations where genuine concern is shared may help in the face of stressful events, while coping reflects a diverse process that may constitute both a modification in meaning and management of stressful events. Finally, the consequences of stress may lead to an array of outcomes, including physiological diseases, subjective experiences of stress, and emotional dysfunction (Ellison 1994; Mirowsky and Ross 1986; Pearlin, Menaghan, Lieberman and Mullan 1981)

Over the past several decades, considerable attention has been given to the role of religion as a mediator in a range of stages in the stress process, including religion as a stress deterrent, social and psychological resource and coping resource (Ellison 1993; Ellison and Henderson 2011). Two salient conceptual models adapted from the stress-

process literature, are used throughout this dissertation to analyze the various relationships between stress, religion and mental health among Black Americans: (a) offsetting (direct) effects *and* (b) stress-buffering (moderating) effects models (Ellison and Henderson 2011; Ellison, Boardman, Williams and Jackson 2001). For ease of presentation, I will use the general terms stress (predictor), religion (predictor) and health (outcome) as a way of illustrating the two conceptual models. However, it's important to note that in the three empirical chapters of the dissertation unique stressors and distinct dimensions of mental health are examined.

In both conceptual models, stress is posited to have a deleterious effect on mental health. The *offsetting effects* model, Figure 1.1, maintains that multiple dimensions of religious involvement – i.e., organizational and non-organizational practices, and subjective religiousness – will be positively associated with mental health, thus countering either partially or completely the impact of stress on mental health. Moreover, these constructs are thought to be largely or completely independent of one another.

Figure 1.2, the *stress-buffering* model, asserts that certain resources help to reduce the impact of stressful events on health and well-being. In this sense, resources serve as an insulating factor, or *buffer*, between stress and health, such that individuals who have more resources are less affected by stress. In this second model, the direct relationship between stress, religious involvement and mental health is posited to be the same as the offsetting model. That is, stress is expected to have an inverse relationship with health and religious involvement is assumed to have a positive association. Here, however, religious involvement is expect to moderate – i.e., buffer or mitigate – the deleterious

Figure 1.1: Direct (Offsetting) Effects

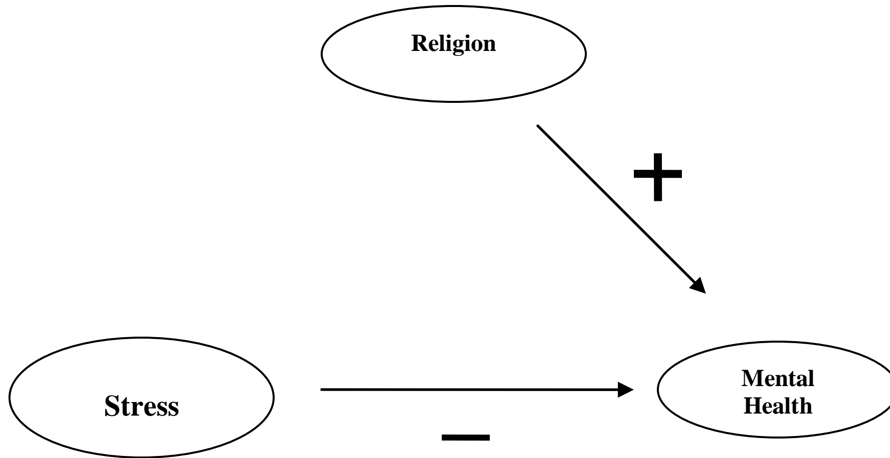
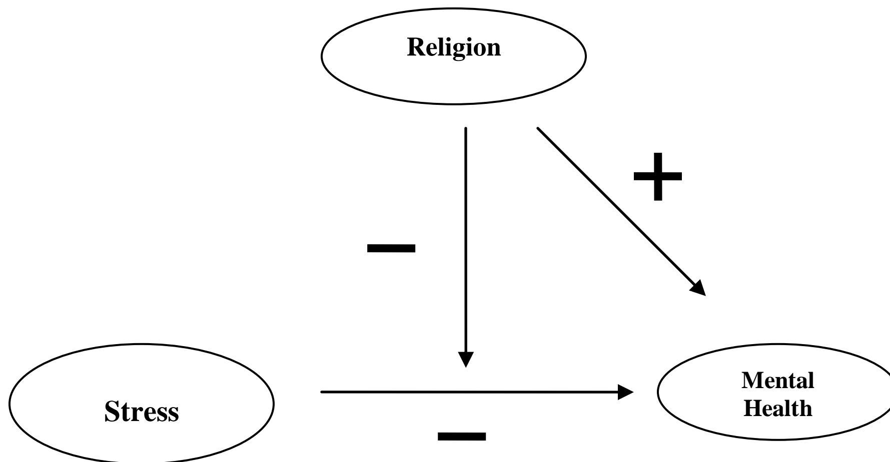


Figure 1.2: Interactive (Buffering) Effects



effects of stress. More specifically, the deleterious link between stress and health will be weaker – i.e., less harmful – for individuals with higher levels of religious involvement. The buffering (or moderating) model is formulated as one involving an interaction – or cross-product term – between some potential source of stress and some resource factor (i.e., stress x religion).

AIMS OF DISSERTATION

The goal of this dissertation is to expand the literature on the religion-health connection among Black Americans. For my purposes Black Americans include Americans of African descent, as well as Afro-Caribbeans who defined themselves as racially Black, but who trace their ethnic heritage to a Caribbean country. Specifically, this dissertation is composed of three separate chapters that will explore the multifarious influence of religion (i.e., organizational, non-organizational and subjective religiosity) and stress on the psychological well-being of Black Americans.

Chapter two will explore the interplay between religion, work-family conflict – or when the demands of one role conflict with another role – and life satisfaction among African Americans. A growing body of work suggests that religion promotes life and relationship satisfaction (Christiano 2000; Frazier 2005; Ellison and Gay 1995; Krause 2004). However, little attention has been given to how religion may buffer the deleterious effect of work-family conflict on life satisfaction. This is surprising given the empirical research on the religion-family connection which suggests religious institutions offer a framework on balancing family-work roles and responsibilities (Christiano 2000; Mahoney, Pargament, Tarakeshwar and Swank 2001; Edgell 2006). Nevertheless, with

few exceptions, there remains a dearth of research concerning family related outcomes among African Americans (for exceptions see Taylor, Jackson and Chatters 1997). Using the stress-buffering model, this chapter examines the link between work-family conflict, religion and life satisfaction among working-age African Americans.

The third chapter explores the link between childhood stressors, religious involvement and self-perception. A growing body of work suggests that childhood stressors – economic and/or health – have long term consequences on adult economic and health trajectories (Lundberg 1993; Luo and Waite 2005). However to my knowledge no studies have examined whether cultural institutions – including religion – may mitigate the deleterious consequences of early childhood experiences. This chapter seeks to breach the gap in the literature, by asking the question, "Does religious involvement mitigate the harmful effects of childhood stressors on (a) personal mastery, and (b) self-esteem among Black American adults?" A series of theoretical arguments on the interplay of (a) multiple dimensions of religious involvement, (b) various facets of childhood stress, and (c) psychological well-being will be developed. Moreover, little work has examined the relationship between religion and mental health among Caribbean Blacks. The proposed research seeks to narrow the gap in this literature by examining the influence of religion on self-perception among a nationally representative sample of *both* African-Americans and Afro-Caribbeans.

The fourth chapter explores the interplay of religion and racial discrimination on substance abuse. A number of prominent social scientists have argued that the stress associated with disadvantaged status and discrimination increases the vulnerability of ethnic minorities, including African Americans, to mental disorders (Cannon and Locke

1977; Mirowsky and Ross 1980). In addition, an emerging body of work suggests religion may aid in dealing with experiences of discrimination and racist encounters (Bierman 2006; Ellison, Musick, and Henderson 2008). This chapter examines whether religious involvement mitigates the deleterious effects of discrimination on substance abuse among African Americans and Afro-Caribbeans.

CHAPTER II: WORK-FAMILY CONFLICT, RELIGIOUS INVOLVEMENT AND LIFE SATISFACTION AMONG AFRICAN AMERICANS

Over the past several decades there has been a growing body of work exploring the links between religion and subjective well-being. Most recent studies report that religiousness, measured in a variety of ways, tends to be inversely associated with symptoms of depression, anxiety or psychological distress (Koenig, Larson and McCullough 2001; Koenigh 2009, 2011) while other studies find religion to be closely related to life satisfaction and happiness (Ferriss 2002; Greeley and Hout 2006; Inglehart 2010). Empirical and theoretical models suggest religion operates through a variety of dimensions to influence well-being, including organizational support (Lim and Putman 2010) and private and subjective facets of religion (Greeley and Hout 2006). In addition to the research examining the direct effects of religion on psychological well-being, a growing body of work has considered the role of religious involvement in promoting well-being in the face of adversity and chronic and acute stressful life events. The results of this research suggest that religious involvement may blunt, or protect against, the deleterious effects of stressful events (Beale 1997; Bradshaw and Ellison 2010; Krause 2006, 2011).

In addition to the work on the religion-health connection, the relationship between religion and family has generated a lot of interest in recent decades (Mahoney 2010; Mahoney, Pargement, Tarakeshwar and Swank 2001). Findings suggest that generic religiousness – including attendance and belief – have positive association with marriage, marital childbearing, relationship quality and satisfaction in the U.S. (Christiano 2000; Wilcox 2004). More importantly, a growing body of work suggests that religion works to

strengthen "fragile" families and African American families specifically (Marks et al. 2006, 2008; Wilcox and Wolfinger 2007). Work by Wilcox and Wolfinger (2007) on urban, religious institutions, particularly churches of color, suggest that these institutions provide a unique framework that aids in promoting relationship quality among urban families in the face of their challenging situations by providing norms, networks and nomos, or sacred beliefs, that enhance relationship quality, including moderation, honesty, and discipline. However, few studies examine how religion may promote well-being among individuals dealing with work-family conflict as a chronic stressful event. This is surprising given the moralistic teachings of most religious traditions concerning work-family strategies (i.e., importance of family) and appropriate roles and family arrangements (Edgell 2006). Moreover, little work has examined the interconnectivity of religion, family, and health among African Americans and how religion may be particularly salient for Black Americans in dealing with stressful events (Marks et al. 2006, 2008).

Work and family issues are an important topic for contemporary society. Since the 1970s, a changing workforce, including a growing number of women workers, dual-earner couples, and single parents, has forced individuals to face the challenge of balancing work and family responsibilities. Conceptually, work-family conflict is defined as a "form of inter-role conflict in which the role pressures from work or family domains are mutually incompatible in some respect" (Greenhaus and Beutell 1985, pp. 77). Consequently, the work-family interface is bi-directional which means work may interfere with family and vice versa. Although the two measures are related, the majority of research makes the distinction between work-to-family (WFC) and family-to-work

(FWC) conflict (Amstad et al. 2011; Mesmer-Magnus and Viswesvaran 2005). First, WFC occurs when experiences at work, such as irregular or inflexible work hours, work overload, or other forms of job stress, interfere with family life (Burke, Weir and Duwors 1980; Pleck, Staines and Lang 1980). Second, FWC emerges when family responsibilities, such as being the primary caretaker of children or aging parents, or interpersonal conflict within the family, interfere with work life (Hobfoll 1989). Although most research has been done on the consequence of WFC, the empirical results of both bodies of work suggest that negative role spillover – e.g., demands of one domain (work) impairing role performance in another domain (family) – have negative consequences for occupational (i.e., absenteeism), family (i.e., relationship dissatisfaction) and individual (i.e., poorer mental health) outcomes (Geurts et al. 2003; Greenhaus, Collins and Shaw 2003; Kirchmeyer and Cohen 1999; Swanson and Power 1999; Vinokur, Pierce and Buck 1999).

The scarcity of research on religion and work-family conflict is somewhat surprising given, as previously mentioned, the increasing levels of work-family conflict in the US., as well as the continued vitality of religion in American life in general and the renewed scholarly interest in the role of religion in family life specifically (Mahoney 2010; Wuthnow 2004). Current research on the religion-family connection suggests that religious involvement may promote relationship well-being, and may be particularly salient in the face of economic hardship and stress (Beale 1997; Ellison, Xu and Edgell 2011; Wilcox and Wolfinger 2007). However, to my knowledge, only one study by Ammons and Edgell (2007) suggests that religiousness in general, and conservative Protestant subculture in particular, influence the work-family strategies – e .g., practical

routines of action that coordinate employment and family life – of marital partners in dual earner couples in the face of role overload or role spillover.

Nevertheless, there remains a paucity of research on religion and health among African Americans (for exceptions see, Ellison 1993; Ellison and Flannelly 2009; Musick et al. 1998). However, several studies by established research teams have been instrumental in providing empirical evidence which suggests religion may be a salient agent in promoting the subjective well-being of Blacks in the US (Taylor, Chatters and Levin 2004). On average, African Americans tend to be much more religious – by virtually any conventional indicator – than whites from comparable backgrounds (Taylor et al. 1996). Moreover, African American religious institutions, practices, and beliefs have often addressed the continuing legacy of material and emotional suffering of African Americas (Taylor, Chatters and Levin 2004). It is due to this unique expression that religion has been found to have a notable impact on a variety of mental health indicators among Blacks in the US.

However, much of the existing literature on role of religious involvement and well-being among African Americans has focused largely on older populations (Krause 2002; 2006) or convenience samples, therefore limiting the generalizability of the findings (Musick et al. 1998). Similarly, the majority of current research on Black families and stress are largely centered on the deficit model or a “social problems” perspective – e.g., research portraying African American behaviors and attitudes as pathological. As a consequence Black families are commonly reduced to the “problems” they face, while little attention is given to the resources they possess to deal with these challenges (Connor and White 2006; Lassiter 1998; Taylor, Chatters and Levin, 1997).

There are few studies examining the intersection of religion, family and well-being among African American families, and perhaps more importantly, how religious involvement may be particularly salient for African Americans in dealing with adversity and stress, including the burden of work-family conflict (Wilcox and Wolfinger 2007; 2008).

This study augments the literature in this area by examining the links between religion, work-family conflict[1], and life satisfaction among African American working-age adults. I begin by outlining a series of arguments on the interplay of (a) work-family conflict, (b) multiple dimensions of religious involvement, and (c) psychological well-being. Two alternative conceptual models are derived, and relevant hypotheses are tested using data from the National Survey of Religion and Family Life (NSRFL), a nationwide sample of working-age (18-59) adults. Due to my interest in this relationship among African Americans, I focus my attention on employed Blacks yielding a sample of size of 532. Results are presented and discussed in terms of research on African Americans and mental health, as well as the broader literature on religion, race and mental health. Study limitations are noted, and several promising directions for future research are identified.

THEORETICAL AND EMPIRICAL BACKGROUND

Work-family Conflict and Psychological Well-being

Research on the relationship between work-family conflict and health outcomes has increased substantially in the past few decades. However, the causal order of the association remains unclear. Three distinct models have been posited to explain the association between work-family conflict and health related outcomes. The first model,

[1] For easy of interpretation the term work-family conflict will be used throughout the manuscript to refer to both work-to-family *and* family-to-work conflict.

Conflict-Strain Model, suggests work-family conflict is an antecedent to psychological strain (Eby et al. 2005; Voydanoff 2002). According to this model, once resources are threatened and depleted due to the high demands of one role (work or family) it is thought to cause psychological strain or distress. The second model, *Strain-Conflict Model*, suggests psychological strain (i.e., depression, anxiety, etc) is a precursor to work-family conflict and as a consequence of psychological strain an individual may be less capable – i.e., lack fewer coping resources – to deal with work-family conflict (Westman, Etzion and Gotler 2004) The third and final model, *Reciprocity Model*, suggests that the relationship between work-family conflict and psychological strain is reciprocal, that is work-family conflict leads to psychological strain which in turn leads back to work-family conflict in a continuous cycle (Frone, Yardley and Markel 1997; Leiter and Durup 1996). Although the causal order of these associations still remains unclear, there are sound reasons to believe that work-family conflict undermines psychological well-being, including life satisfaction (Allen et al. 2000; Greenhaus, Collins and Shaw 2003; Grzywacz 2000; Kinnunen, Geurts and Mauno 2004). In their meta-analysis, Kossek and Ozeki (1998) reported a weighted mean correlation of -.31 between work-family conflict and life satisfaction, while more recent studies, using longitudinal data, find that increased work-family conflict generally bears an inverse association between life satisfaction and other measures of well-being (Allen et al. 2000).

While a large body of work suggests that work-family conflict is harmful to individual well-being, most studies have examined these effects among predominately White samples from North America or Europe (Spector et al. 2004). There remains a dearth of research examining the effects of work-family conflict on the psychological

well-being among race/ethnic minorities. In recent years, a small, but growing, body of work has examined race/ethnic differences in the levels of WFC. Surprisingly, the results suggest there are few differences in the levels of WFC between Whites and Blacks. However, because the majority of research among non-Hispanic, White samples indicates that conflict in both work and family domains has a deleterious effect on well-being, a safe assumption is that WFC is also harmful to the well-being of African Americans.

Although continued research investigating WFC among African Americans is needed, it may be a salient issue for this population for several reasons. First, due to the distinct employment patterns of Blacks, WFC might be a difficult challenge for African Americans. Research suggest that African Americans may face stressful challenges with fewer resources, including social and financial resources, due to structural factors that limit access and opportunity (Williams 1999). In the work domain, African Americans may be more susceptible to conflict due to both historical and present day discrimination and racism (Holder and Vaux 1998; Pettigrew and Martin 1987). According to Pierce (1970) and colleagues, African Americans work and live in

> an environment where racism and subtle oppression are ubiquitous, constant, continuing, and mundane. African Americans must daily suffer the annoying ‘‘micro-aggressions’’ such environments breed . . . .To say that being Black in America does not add a high stress factor is to be blind to the history and contemporary manifestations of that history (Pierce, 1970, pp. 271, 273).

Although the concept of ‘micro-aggressions’ was first introduced almost four decades ago, several recent studies by social psychologists suggests that the everyday insults, indignities and demeaning messages sent to persons of color continue both in work and social environments (Sue et al. 2007; Smith, Allen and Danley 2007). Furthermore, these racial micro-aggressions at work and other social contexts are related

to feelings of powerlessness and invisibility and lower levels of physical and psychological functioning among African Americans (Sue, Capodilupo and Holder 2008; Sellers, Copeland-Linder, Martin and Lewis 2006).

Second, several distinct facets have been identified in the literature on the distinct labor market experiences of African Americans. Research finds Blacks are more likely to: (a) to suffer from job instability, including underemployment and unemployment (Browman et al. 1995; McKinnon 2003); (b) to be overrepresented in unskilled, low autonomy occupations in which job satisfaction is low and poor health is high (McKinnon 2003; Swinton 1989); (c) to have lower wages and poorer working conditions (Bowman 1991); and (d) to suffer from greater economic hardship as a result of joblessness (Brimmer 1985; McLoyd 1990). Several qualitative studies examining the unique stress(ors) of African American families find economic stress, including work-to-family conflict, a major issue for many Blacks and their families (Marks et al. 2006, 2008).

Third, family-related demands may be a source of unique stress for many African Americans. The structure of many Black families includes not only nuclear family ties, but extended kinship networks or fictive kinship networks that are relationships unrelated by either blood or marriage, but regarded as one related in kinship terms (i.e., likened to blood-ties, sociolegal or marriage ties, and parenthood) (Chatters, Taylor and Jayakody 1994). For instance, several studies suggest family demands contribute to depression among Black women, because they often feel absorbed by the duties and responsibilities related to the family (Carrington, 1980; Franklin 1987). Additionally, according to Marks and colleagues (2008), a unique stress for many Black families are the "*knocks of*

need" or the financial and emotional support offered to family, extended family, fictive kin or acquaintances by more economically stable family members. For many Blacks, taking on the responsibility of a relatively large network of close family relationships is pervasive and taxing; however, research suggests that this collective action is a strong component of African American identity (Marks et al. 2006). Neighbors (1997) summarizes both the invaluable assistance these families give, and the challenges they subsequently incur by concluding that this ''informal social support is a 'double-edged sword''' (p. 293), while other scholars concluded that the "good news" for many Black families "is that no one starves . . .[but] the bad news is that no one gets ahead'' (Stewart 2004, p. 293). Nevertheless, very little work has been done to investigate the relationship between work-family conflict and psychological well-being among African Americans. One exception is the work of Beale (1997), who used data from the National Survey of Black Americans (NSBA), and found that family role strain does have a significant adverse effect on psychological well-being, while religiosity buffered the negative effects of general role overload on life satisfaction.

The Role of Religion

As described in Chapter 1 religion is a complex construct with several theorized pathways that may directly influence mental health. Several decades of work have embraced the approach of defining religion as a multi-dimensional phenomenon, including: (a) organizational religious involvement; (b) non-organizational religious involvement; and (c) subjective religiousness. An extensive body of work finds that the main effects of religion on mental well-being are positive, and potential pathways connecting religion and mental health were explored in the previous chapter (Koenig,

Larson and McCullough 2001; Ellison and Levin 1998). However, religious involvement may be an important avenue for addressing work-family conflict and life satisfaction among Black Americans.

So, how might religious involvement influence life satisfaction in the face of work-family conflict? First, organizational religious involvement, generally measured through religious attendance, may influence life satisfaction by bringing together like-minded individuals who share faith commitments and values on a regular basis. Therefore, religious congregations may offer fertile ground for cultivating friendships and relationships that aid individuals in times of trouble (Ellison and George, 1994). These social networks may be particularly salient for individuals struggling with balancing work and family issues by supporting family-oriented lifestyle choice (Edgell 2006), as well as role modeling desired behaviors of work-family balance (Edgell 2006; Wilcox, Chaves and Franz 2004). Work by Edgell (2006) suggests religious communities provide support and encouragement for individuals who desire to "construct a life around marriage and parenting instead of work," especially for men (p. 51). This reframing of priorities from career to family has been found to promote psychological well-being, including increased happiness and life satisfaction (Decktop, Jurkiewicz and Giacalone 2010).

In addition, religious communities offer both formal (e.g., sermons and pastoral counseling) and informal support (e.g., socio-emotional support) which may increase well-being (Krause 2002). One important avenue for support offered by many religious communities are the formal programs or ministries targeted at enriching individuals and families, which may include efforts to disseminate a wide range of information and

services. In addition to formal programs, many individuals seek pastoral counseling on a host of personal, family, and spiritual issues (Neighbors et al. 1998). Religious activities (e.g., worship, Bible studies, and small group experiences) may offer participants an opportunity to disclose intimate, deeply personal issues in a climate of sympathy and trust (Wuthnow 1994). These features of congregational life may promote a sense of belonging, assistance and love (Ellison and Levin 1998). Further, it reinforces personal faith, thereby strengthening meaning systems through which individuals organize and interpret their affairs (Berger 1967; Williams et al. 1991). Although these congregational processes and resources may foster well-being among a wide range of individuals, they may be particularly valuable for individuals struggling with issues of balancing work and family responsibilities.

Second, non-organizational religious involvement, or involvement in private religious pursuits such as prayer, meditation, Bible reading, or other personal spiritual practices, may also promote well-being in the face of WFC. These behaviors lead many individuals to develop a close relationship with God, as well as help apply religious teachings to daily life (Pargament 1997). This close relationship with God may lead to a stronger meaning and purpose in life, which may include insights into prioritizing work and family (Krause 2003). During difficult life circumstances, non-organizational practices such as prayer and Bible study, may also allow individuals to engage God on a routine basis for solace, comfort and guidance that reduces stress while also enhancing satisfaction in role domains.

In addition, private facets of religion have been found to be an invaluable psychological resource for individuals during times of stress and strain as a means of

coping and managing stressful situations (Pargament 1997; Pargament et al. 1990). For these persons, private religious involvement may provide a sense of control and meaning to events – e.g., as opportunities for growth or being part of God's plan – that result in a positive worldview that is more optimistic and hopeful. Here again, these facets of non-organizational religiousness are likely to benefit many persons, but may be especially helpful for individuals dealing with stress of balancing work and family commitments.

Third, and finally, subjective religious identity may also exhibit a positive influence on mental health amid conflict. Subjective aspects of religious involvement, generally defined as the personal importance or self-assessed strength of one's religious identity, may work by providing believers with an orientating framework for decision-making and conduct in many life domains (Burdette and Hill 2009; Schieman, Pudrovska and Milkie 2005). Although individual intentions may vary for engaging in religious behaviors, those who are intrinsically motivated – i.e., committed to applying and living out their faith in all areas of their lives – may find greater psychological benefits to their religious identity (Ryan, Rigby and King 1993). Indeed, individuals who look to their religious beliefs for structure and guidance find a comprehensive framework for interpreting and assigning significance to mundane affairs, chronic challenges and traumatic events. For these reasons, individuals who are more intrinsically religious, and who receive a great deal of guidance from religion in their daily lives, may have higher levels of psychological well-being as well as be less prone to psychological problems in the face of stressful situations. Moreover, the expected emotional gains from subjective religiousness may be especially pronounced for individuals who are

effectively coping with the stress of balancing work and family responsibilities (Pargament 1997).

Religion among African Americans

Religion in the lives of African Americans, particularly as a useful strategy for dealing with stressful events, has been posited to be important for several reasons. First, the literature reveals that, on average, Blacks are more involved in religion than Whites. Race comparisons across national surveys indicate that Blacks are more religious than Whites on almost every indicator of religion, including service attendance, reading religious texts, prayer and meditation, and subjective religious importance (Taylor and Chatters 1999). Moreover, other studies indicate that African Americans provide and receive more support in church than Whites, including support from pastoral leadership and congregation members (Krause 2002). This work has indicated the distinctive benefits of church-based support for the health and well-being of African Americans, including lower levels of depression (Ellison and Flannelly 2008) and higher rates of self-esteem (Krause 2003; Ellison 1993). In addition, studies of African Americans reveal that a large number of adults turn to religion when coping with crises and chronic strains (Neighbors, Musick and Williams 1998; Poindextor, Linsk and Warner 1999). For them, religious faith offers a set of principles that order daily affairs, a source of guidance and inspiration, and sustains them in times of difficulty (Ellison and Taylor 1996). While these high rates of religious involvement do not equate to an automatic connection between religion and health among Black Americans, they do suggests that religion and its expression holds a unique place in the lives of African Americans and that it may be particularly useful in the face of chronic and acute stressors.

Second, there is a long tradition which suggests that African Americans may derive feelings of euphoria and therapeutic release from their unique worship experience that helps to alleviate stress (Gilkes 1980; Griffith, Young and Smith 1984). For instance, African American churches offer opportunities for "members of the church to recount sources of suffering," in which calls of "amen" or "tell Jesus" by other parishioners serve as "a communication to fellow members that they understand their troubles" (Gilkes 1980:33–34). These therapeutic aspects of the Black worship experience may provide opportunities to release harmful emotions caused by stress in the work and family domains.

Third, Black religious expression has and continues to provide a script for understanding the African American experience that may be particularly useful in promoting well-being, even in the face of stressful situations. As suggested earlier, the recent work by Wilcox and Wolfinger (2008), finds that religious involvement is particularly valuable for urban relationships – usually classified as "fragile" – by promoting a "code of decency". First established by Elijah Anderson (1999), the ethos of "decency" in urban America encompasses norms like self-control, hard work, honesty and respect, while opposing the codes of the "street" which endorses violence, substance abuse, promiscuity and crime. The authors suggest that embeddedness in religious social networks encourages supportive, nonviolent behaviors that improve relationship quality, particularly for men (Wilcox and Wolfinger 2008). Religious involvement reorients urban couples toward "decency," which may foster positive emotional coping that helps them deal constructively with stress and thereby promoting relationship quality and satisfaction (Wilcox and Wolfinger 2008).

The literature reviewed in this section indicates that religion occupies a central role in the Black community. Consequently, it follows from this work that the specificity of Black religious expression may aid directly in the well-being (i.e., life satisfaction) of African Americans, both generally as well as during times of stress and conflict.

Two Conceptual Models

Drawing from the previous discussion, and based on principles from the life stress paradigm, which guides much of the contemporary research on the social patterning of mental health and illness, two conceptual models are used to examine the relationship(s) between work-family conflict, religion, and life satisfaction among working African American adults (Ellison and Henderson 2011; Ellison, Boardman, Williams and Jackson 2001): the offsetting and stress-buffer models. These models were discussed and depicted in Chapter 1, Figures 1.1 and 1.2.

In the offsetting effects (or main effects) model: (a) work-family conflict is posited to have an inverse association with life satisfaction; (b) multiple dimensions of religious involvement – i.e., organizational and non-organizational practices, and subjective religiousness – are expected to have a positive association with life satisfaction; and (c) the effects of WFC and religious involvement are thought to be largely or completely independent of one another.

In the second model, the stress-buffering (or moderator) effects, the relationship between the direct effects of work-family conflict and religious involvement on life satisfaction are expected to be the same as the offsetting model. That is, work-family conflict is expected to have an inverse relationship with life satisfaction, and religious involvement is posited to have a positive association. Here, however, religious

involvement is proposed to moderate – i.e., buffer or mitigate – the deleterious effects of work-family conflict on life satisfaction among Blacks. More specifically, the deleterious link between work-family conflict on Black's life satisfaction will be weaker – i.e., less harmful – for individuals with higher levels of religious involvement. As discussed in Chapter 1, the buffering model involves an interaction term between work-family conflict and religious involvement.

DATA

Data come from the National Survey of Religion and Family Life (NSRFL), a 2006 telephone survey of adults, age 18 to 59, residing in the continental U.S. The NSRFL was designed to cover a variety of topics, including religious affiliation, beliefs and practices, marriage and cohabitation, gender and family attitudes. Households were selected using a random-digit dialing design (RDD), and one respondent was chosen at random within each household. On average, the survey took 30 minutes to complete, and if desired, could be conducted in Spanish (Burdette, Haynes and Ellison 2010). An oversample of African Americans and Hispanics were taken by dialing within telephone area codes containing at least 10% concentrations of the respective ethnic subgroups. Notification letters, refusal conversion letters, and non-contact letters were mailed to all sampled households for which addresses were available. The overall cooperation rate was 54%, with higher cooperation rates among the race/ethnic subsamples. The response rate for the NSRFL was 36%. The African American and Hispanic oversamples had a response rate of 41% and 36%, respectively (Burdette, Haynes and Ellison 2010).

Although the NSRFL response rates are low by traditional standards, the rate recorded by the survey is almost identical to that recorded by other influential projects,

such as the American Mosaic Project (see Edgell, Gerteis, & Hartmann, 2006; CMOR, 2003). Moreover, recent evidence suggests that the relationship between response rates and data quality is relatively weak (Keeter, Miller, Kohut, Grooves, & Presser, 2000). In a recent paper posted by the American Association of Public Opinion Research (AAPOR) entitled "Do Response Rates Matter?," the authors suggest that recent comparisons between small scale surveys and US Census data or very large governmental sample surveys have called into question the positive association between response rates and survey quality. Their results suggest that "…the least bias have turned out, in some cases, to come from surveys with less than optimal response rates…." (AAPOR, 2008). Much of the relevant evidence is in a special issue of the *Public Opinion Quarterly* devoted to survey nonresponse (Singer, 2006). Additionally, while these low response rates may not be optimal, the NSRFL is one of the few available surveys, to my knowledge, collected from a nationally representative sample of working-aged Americans that includes measures of work-family conflict, religious involvement and measures of psychological well-being, as well as a subsample of African Americans large enough to examine these relationships.

The full NSRFL sample contains roughly equal numbers of African Americans, Hispanics, and non-Hispanic Whites. However, the focus of this paper is on the relationship between religious involvement, work-family conflict and life satisfaction among employed African Americans. Therefore, the Hispanic and non-Hispanic, White subsamples were dropped from these analyses. The data and subsequent results are weighted to permit population estimates; however, sample descriptive data are in unweighted form.[i] Sample weights were developed using the 2005 Current Population

Survey (CPS) data to match on the demographic characteristics of the U.S. population. In ancillary analyses not shown, when comparing the sample used in the analyses to demographics provided by the US Census, the analytical sample is similar in education, income and marital status.[ii]

Prior to listwise deletion of key missing variables, there were 550 employed (both full- and part-time) African Americans respondents. After listwise deletion, there is an analytical sample of n=528; that is 4% of the sample was dropped from the analyses. The only exception to this was for the variable income. In an effort to retain as many cases as possible, mean imputation was used on missing cases (n=41) and a flag was created (1=Missing on income vs. 0= All others) and included in all the analyses. In ancillary analyses (not shown), there were few differences on key variables – e.g., work-family conflict and religious involvement – between the analytical sample and cases dropped from the analyses. Among the deleted cases, respondents were less likely to be married (44% vs. 25%), were slightly younger (40.37 vs. 36.75), and were more likely to be men (44% vs. 50%).

Dependent Variable

Life satisfaction was measured by asking the respondent, "All in all, how satisfied are you with your life in general?" Responses ranged from 1= "Not at all satisfied" to 10= "Completely satisfied" (Lim and Putnam 2010). Higher scores on this measure indicate more life satisfaction.

Key Independent Variables

As recommended by the literature (Amstad et al. 2011; Mesmer-Magnus and Viswesvaran 2005), the respondents' ongoing work-family conflict was measured on two

dimensions: Work-to-Family (WFC) and Family-to-Work (FWC). First, WFC was measured with a 4-item mean index including some of the following questions, “My work kept me from spending enough time on my family;” and “My work made me feel anxious or depressed.” Responses ranged from 1= “Always” to 5= “Never;” items were reverse coded so that higher scores indicate more WFC. The Cronbach’s alpha for this item was .90. Secondly, FWC was measured with a similar 4-item mean index. Questions included, “My family made me feel tired or exhausted;” and “My family kept me from spending enough time on myself.” Higher scores indicate higher FWC. The Cronbach’s alpha for this index is .89.

Current literature conceptualizes religiosity as a multidimensional construct (Levin, Taylor and Chatters 2005). Consistent with this literature I measured three distinct aspects of religious involvement: (a) organizational, (b) non-organizational, and (c) subjective. First, organizational religious involvement was measured by the frequency of church attendance. Respondents were asked the following item: ‘‘How often do you attend religious services?’’ and response categories ranged from 1= “Never or not since 18 years old” and 6= “More than once a week.” Second, non-organizational religious engagement was measured via the frequency of prayer or meditation (i.e., “How often do you meditate or pray by yourself?”). Response categories range from 1= “More than once a day” to 8= “Less than once a month;” responses were reverse coded so that higher scores indicate respondents pray/meditate more often. The final dimension of religious involvement includes, subjective religious involvement, which was gauged by asking, “In your life, how much guidance do you receive from your religious beliefs or teachings?”

Responses ranged from 1= “A great deal of guidance” to 4= “No guidance;” items were reverse coded so that higher scores indicate more religious guidance.

In addition to these religious involvement variables, I constructed a religious support index consisting of two items. Respondents were asked how likely they were “to turn to the following people for help”: (1) religious leader (such as a pastor, priest, or rabbi) and (2) friend from church or place of worship. Response categories ranged from 1= “Very likely” to 3= “Not at all likely;” items were reverse coded so that higher scores indicate more religious support. The Cronbach’s alpha for this index is=.78 and the Pearson correlation coefficient between these two items is .53, $p<.001$.

The analyses controlled for several background factors that are known or suspected correlates of my dependent and independent variables, and therefore could confound the associations of interest in this study. These factors included: gender (1=female vs. 0=male); relationship status (dummy-coded into 1=cohabitation, 1=never married, 1=divorced and/or separated, with married=0 serving as the reference category); education (dummy-coded into 1=less than high school; 1=high school diploma; 1=some college (<4 yrs); 1=bachelor’s degree; and 1=advanced degree, with high school diploma=0 serving as the reference category); income (measured using eight categories ranging from less than 1=$15,000 to 8=more than $100,000); child(ren) present in home (1= 1 or more child(ren) present vs. 0 = no children present); employment status (1=part-time employment vs. 0=full-time); and a social support index (measured by taking the mean-index of six items ranging from 1= “Not at all likely” to 3= “Very likely” the respondent would turn to select individuals in time of trouble). The social support index

consisted of the following individuals: spouse, friends, neighbor, family members, and parents. The Cronbach's alpha for this index is =.52.

Analytical Approach

The data analysis progresses in several steps. First, I examined descriptive statistics and bivariate correlations among key variables of interest. This information is displayed in Table 2.1 and 2.2 respectively. Next I estimated a series of ordinary least squares (OLS) regression models to test the main effects (or offsetting model) of work-family conflict and religious involvement on life satisfaction.[iii] These results are presented in Table 2.3. Finally, I test the stress-buffering model, which held that religious involvement would moderate the links between work-family conflict and life satisfaction among African Americans. I tested this model by adding multiplicative interaction terms (i.e., religion x work-family conflict) to the OLS regression models described above. Prior to calculating the cross-product terms, variables were zero-centered as recommended by Aiken and West (1991), to reduce collinearity between raw and product terms and for easier interpretation of the main effects. These results are presented in Table 2.4.

RESULTS

Descriptive statistics on all variables used in the analyses are displayed in Table 2.1. According to these data, respondents report relatively high levels of personal life satisfaction with a mean of 7.20 (range=1-10). On average, respondents report experiencing moderate levels of work-to-family conflict (2.53) and lower levels of family-to-work conflict (1.92). Levels of religious involvement were rather high among the respondents, with mean scores above the mid-point on all five measures. Finally, in

terms of demographic characteristics, nearly 66 % of the sample is female, the average age is approximately 40.4 years old, around 25% had a high school diploma, while roughly 44% were currently married at the time of the survey.

Table 2.2 provides bivariate associations between the key study variables. As expected, both WFC ($r = -.191$, $p<.001$) and FWC ($r = -.229$, $p<.001$) have a negative correlation with life satisfaction. All four measures of religious involvement – e.g., attendance, prayer, religious guidance and religious – are positively correlated with life satisfaction. The association between these four religious involvement variables and life satisfaction ranged from roughly .095-.226 ($p<.05$).

Table 2.3 displays the results of the OLS regression models. As predicted, the data in model 1 reveal that work-family conflict is associated with lower levels of life satisfaction. For example, these findings show that both WFC (Model1: $b=-.267$, $\beta=-.130$, $p<.01$) and FWC (Model 1: $b=-.504$, $\beta=-.209$, $p<.001$) are negatively associated with life satisfaction net of one another and a wide range of covariates. In Model 2, the two WFC variables were removed, and the main effects of religious involvement and covariates on life satisfaction were examined. These results suggest that religious attendance (Model 2: $b=.178$, $\beta = .140$, $p<.01$) and religious support (Model 2: $b= .312$, $\beta = .110$, $p<.05$) are positively related to life satisfaction among Black Americans. The results of model 3, in which WFC, religious involvement and covariates are included in the model offer tentative support for the offsetting model. According to this conceptual model, religious involvement would counter – either partially or completely – the impact of WFC on life satisfaction.

Table 2.1: Descriptive Statistics of Variables Used in Chapter II.

	Range	Mean ($\hat{p}$)	Std. Dev
Life Satisfaction	1-10	7.20	1.99
Work-to-Family Conflict	1-5	2.53	1.03
Family-to-Work Conflict	1-5	1.92	.87
Attendance	1-6	3.92	1.63
Prayer	1-8	6.70	1.46
Religious Guidance	1-4	3.40	.94
Religious Support	1-3	1.94	.74
Gender	0-1	(.66)	
Less than High School	0-1	(.06)	
High School Diploma	0-1	(.25)	
Some College (<4yrs)	0-1	(.41)	
College Degree	0-1	(.17)	
Advanced Degree	0-1	(.11)	
Married	0-1	(.44)	
Cohabiting	0-1	(.06)	
Never Married	0-1	(.30)	
Divorced/Separated	0-1	(.20)	
Income	1-8	3.69	4.72
Age	18-59	40.37	10.74
Child in Household	0-1	(.56)	
Employment Status	0-1	(.15)	
Social Support	1-3	1.84	.43

N=532; NSRFL

Table 2.2: Correlation Matrix of Pearson Correlation Coefficients

	1	2	3	4	5	6	7
1. Life Satisfaction	---	-.191***	-.229***	.226***	.095*	.123**	.158***
2. Work-to-Family Conflict		---	.402***	-.024	.041	-.002	.028
3. Family-to-Work Conflict			---	-.023	.040	.058	.021
4. Attendance				---	.352***	.449***	.445***
5. Prayer					---	.421***	.267***
6. Religious Guidance						---	.313***
7. Religious Support							---

Note: *p<.05; **p<.01; ***<.001

In full model, WFC and FWC continue to be negatively associated with life satisfaction, net of covariates; while religious attendance and religious support has a positive association with life satisfaction. It is important to note that with the inclusion of the religious involvement variables there is a slight increase in the size of the WFC coefficients, which might suggest a suppressor effect, or that once religious involvement is taken into account WFC has a stronger negative effect on life satisfaction among African Americans. However, additional analyses find no significant change in the coefficients.

The inclusion of multiple indicators of religiousness creates the potential for multicollinearity. Mindful of this possibility, I carefully examined diagnostic tools, such as tolerance and variance inflation factor (VIF) statistics. Although experts disagree regarding the threshold values of these measures, a number of statistical texts cite rules of thumb for VIF ranging from 4-10 as a sign of significant multicollinearity (e.g., Cohen et al. 2003; von Eye and Schuster 1998). More recent work cautions that even these standards should be evaluated in the context of several other factors that can influence the variance of regression coefficients (O'Brien 2007). The highest VIF in my models is approximately 2.0, with most values falling below 1.5. These values suggest that multicollinearity is not a significant issue in these analyses.

Turning to the interactive models in Table 2.4, I find mixed support for the hypothesized role of religiousness in buffering the deleterious influence of work-family conflict on mental health. For the sake of presentation, only significant interactions terms are displayed in Table 2.4. An example may help to illustrate how to interpret the findings presented in the table. Model 1, presented in the first column of Table 2.4,

tested the moderation model with regard to (a) work-to-family conflict and the buffering role of religious guidance vis-a-vis life satisfaction. Here, the main effect of work-to-family conflict on life satisfaction was significant and negative ($b=-.260$, $\beta=-.126$; $p<.01$). These results can be interpreted as follows: when religious guidance is zero (e.g., the mean in this case), every unit increase in work-family conflict decreases life satisfaction by -.260. The association between religious guidance and life satisfaction was insignificant (column 2 $b=-.014$, $\beta=-.007$; N.S.).

The cross-product term estimating the interaction of work-to-family conflict x religious guidance is positive and significant ($b=.211$, $p<.01$), indicating that the deleterious effects of work-to-family conflict on life satisfaction diminishes as levels of religious guidance increase. These results are also presented in Figure 2.3. An illustration of the interaction provides insight into its meaning. As a starting place, the mean line in Figure 2.3 indicates the conditional effect of work-family conflict on life satisfaction when religious guidance is at the mean. As levels of religious guidance increase – as seen by the two lines above the mean line, representing 1 and 2 standard deviations above the mean respectively – the negative effects of work-to-family conflict on life satisfaction are lessened as indicated by the slope of these lines. The two lines below the mean – when religious guidance is 1 and 2 standard deviations below the mean – the slope of the lines are much steeper, which suggests that the effects of work-to-family are more harmful at these lower levels of religious involvement. Moreover, the addition of the cross-product interaction term significantly increases the adjusted r-squared term for Models 1 and 2, which suggests that the inclusion of the interaction terms significantly increases the predictive power of the model.

Table 2.3: The Estimated Net Effects of Work-Family Conflict, Religious Involvement and Other Covariates on Life Satisfaction: OLS Regression [a]

	Model 1	**Model 2**	**Model 3**
Work-to-Family Conflict	-.267/-.130**		-.290/-.141**
Family-to-Work Conflict	-.504/-.209**		-.487/-.202***
Attendance		.178/.140**	.186/.147**
Prayer		.078/.061	.064/.050
Religious Guidance		.023/.011	.020/.010
Religious Support		.312/.110*	.325/.115*
Gender	.341/.082+	.012/.003	.159/.038
Less than High School	-1.084/-.150***	-1.029/-.142**	-1.134/-.157***
Some College	-.739/-.168***	-.847/-.193***	-.795/-.181***
College Degree	-.737/-.121*	-.903/-.148**	-.859/-.141**
Advanced Degree	-.141/-.018	-.338/-.044	-.146/-.019
Cohabiting	-.983/-.134**	-.508/-.069	-.614/-.083+
Never Married	-.461/-.107*	-.198/-.046	-.229/-.053
Divorce/Separated	-.181/-.031	-.113/-.020	-.070/-.012
Income	.015/.014	.044/.040	.028/.026
Age	-.013/-.069	-.014/-.075	-.021/-.113*
Child(ren) in Household	.007/.002	-.186/-.044	-.032/-.008
Employment Status	-.392/-.073	-.332/-.062	-.405/-.076+
Social Support	.337/.069	.142/.029	.193/.039
Intercept	9.273***	6.279***	8.066***
Adj. R^2	.102	.073	.148

Notes: N=532; +p<.10; *p<.05; **p<.01; ***p<.001
[a] Coefficients are weighted; unstandardized are in front of the solidus and standardized coefficients are behind.

Figure 2.2, which illustrates the interaction between family-to-work and religious guidance on life satisfaction, can be read much the same was as Figure 2.1. Here again the slope of the lines when religious guidance is 1 and 2 standard deviations below the mean is steep and negative. However, when religious guidance is 2 standard deviations above the mean, the line appears almost flat.

Ancillary Analysis

In addition to the models presented in the tables, I also estimated several sets of ancillary analyses (not shown). First, several studies suggest that the relationship between religion and health is nonlinear. Accordingly, religious involvement was defined using three categories (high, medium and low) to account for the potential nonlinear relationship between religious involvement and life satisfaction. The low level of religious involvement – e.g., attendance, prayer, guidance, and religious support – was used as the reference category. These results suggest that respondents with high and modest levels of religious attendance have higher life satisfaction compared to those with low levels of religious attendance. Also, respondents who receive a moderate level of religious support have higher levels of life satisfaction than individuals who receive low levels of religious support. No additional relationships were found between the other nonlinear measures of religious involvement – e.g., prayer and religious guidance – and life satisfaction. These results suggest modest support for the nonlinear relationship between religion and life satisfaction.

Second, mindful of potential differences in religion and work-family conflict between men and women, I split the data by gender to determine whether the observed

Table 2.4: Interaction Effects of Religious Involvement and Work-Family Conflict on Life Satisfaction: Stress-Buffering Model [a,b,c,d]

	Model 1	Model 2	Model 3
Work-Family Conflict	-.260/-.126**		
Family-to-Work Conflict		-.446/-.185***	-.471/-.196***
Religious Guidance	-.014/-.007		.054/.026
Private Prayer		.069/.054	
WFC x Religious Guidance	.211**		
FWC x Prayer		.103+	
FWC x Religious Guidance			.334**
Adj. R^2	.158	.151	.163
ΔR^2	.01	.003	.015

Notes: N=532; +p<.10; *p<.05; **p<.01;
***p<.001

[a] Coefficients are weighted; unstandarized are in front of the solidus and standardized coefficients are behind.

[b] Interactive models control for all the following variables: gender, age, income, child(ren) in household, education, employment status and marital status

[c] Components of interaction terms are zero-centered, as recommended by Aiken and West (1991).

[d] All cross-product terms were entered independently.

Figure 2.1: Interaction between Work-to-Family Conflict and Religious Guidance on Life Satisfaction.

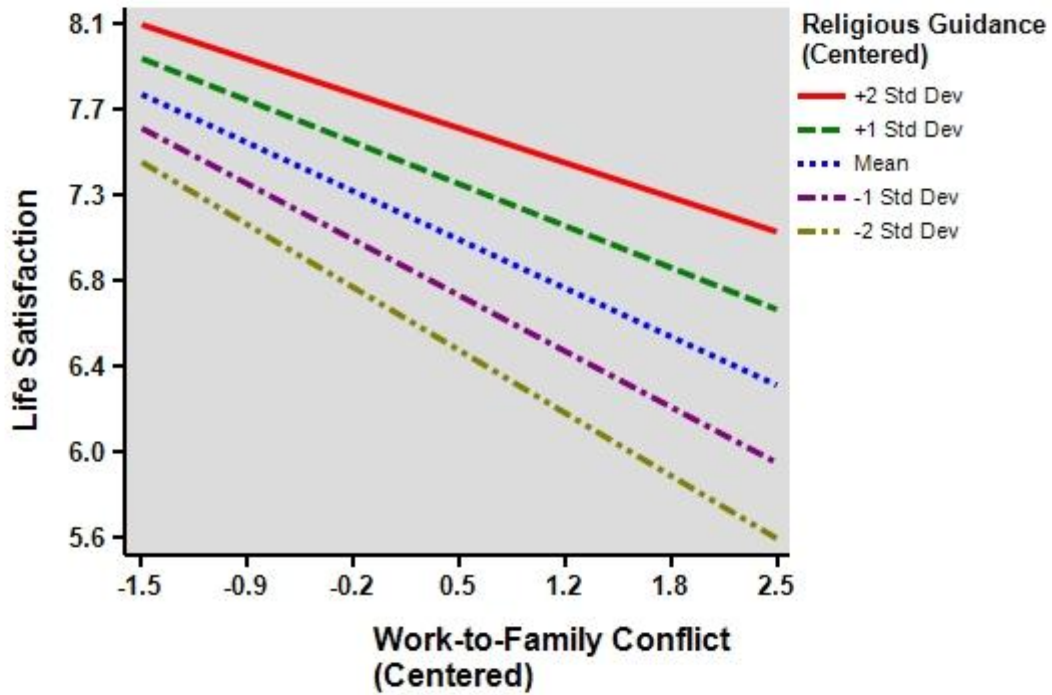
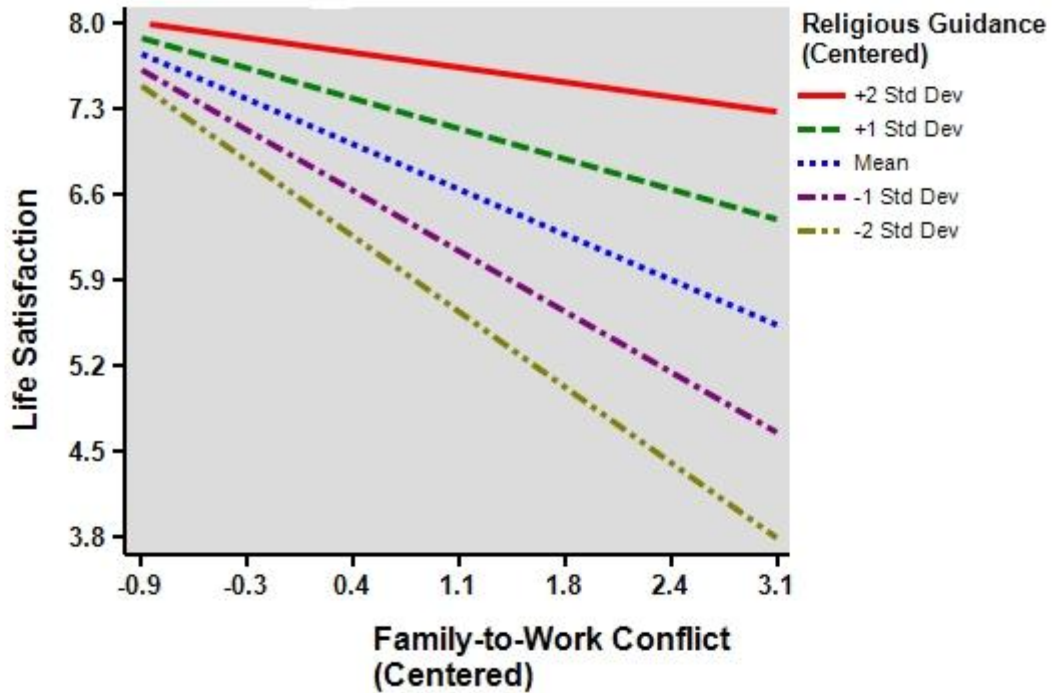


Figure 2.2: Interaction between Family-to-Work Conflict and Religious Guidance on Life Satisfaction.



links between religious variables (e.g., church attendance, prayer, etc) and the outcome of interest (life satisfaction) differ across these two subsamples. Cross-product interaction terms (religion x work-family conflict) were added to the full models in Table 2.3. No evidence of significant differences by gender emerged from these analyses.

DISCUSSION

Work-family conflict is a growing issue in the U.S., particularly among Black Americans. However, with few exceptions (Ammons and Edgell 2007; Marks et al. 2008), little attention has been given to the possible mitigating effects of cultural institutions, such as religion, in offsetting the noxious effect of work-family conflict on psychological well-being. My main findings can be summarized as follows: First, as expected, all indicators of work-family conflict are linked to poorer mental health, i.e., lower levels of life satisfaction. Second, two of the five religious indicators, e.g., attendance and religious support, are positively associated with life satisfaction. In addition to these main effects of religious involvement, I also find aspects of religiousness buffer (i.e., moderation) in the link between work-family conflict and mental health. Taken together, my results lend partial support for both the direct (offsetting) and moderating (buffering) models outlined earlier.

Overall, the results suggest that the frequency of religious attendance and religious support many have important implications for the psychological well-being of employed African Americans. According to my results, regular attenders and individuals receiving religious support from co-religionist or religious leaders, generally experience higher levels of life satisfaction, thus partly offsetting the impact of work-family conflict

on psychological well-being. What might explain these empirical patterns? Religious congregations offer fertile ground for friendship formation and social support (Krause 2002). These communities can provide love, encouragement, and hope, as well as tools and resources for coping and assigning meaning to problems and challenges. In a recent study by Lim and Putman (2010) using data from the Faith Matters Study, a nationwide study examining the connection between religion and social capital in the U.S., the authors found that the social connections forged in congregations and strong religious identities were the key variables that mediate the positive association between religion and life satisfaction. According to these authors, "people with religious affiliations are more satisfied with their lives because they attend religious services frequently and build intimate social networks in their congregation….in terms of life satisfaction, its neither faith or communities, per se, that are important, but communities of faith (p. 927)." For employed African Americans, the acceptance provided by co-religionists may promote a sense of belonging that enhances well-being.

Perhaps the most novel and important finding in this study involves the interactive effects of both forms of work-family conflict (e.g., WFC and FWC) and religious guidance. Briefly, the results show that religious guidance buffers the deleterious effects of work-family conflict on African Americans' life satisfaction. That is, work-family conflict is less distressing for employed African Americans with strong religious guidance as compared with those with lower levels of religious guidance. These results support the findings of several qualitative studies – and to a lesser extent quantitative studies – examining the experience and consequence of work and family related stress in African American families. In several recent studies, work and family demands were one

of several salient issues facing many employed African Americans (Beale 1997; Marks et al. 2006); however, high religiosity worked to protect against the adverse effects of work-family conflict. According to Marks and colleagues (2006), private, religious guidance (e.g., prayer and Bible studies) was a primary resource for many African American couples dealing with the stressors of work and family responsibilities.

In addition, for many African Americans, a religious ideology around work and family may offer an orientating system for balancing these two life domains. Most religious communities try to shape the beliefs and choices of its members through moral and ethical teachings, including choices around work-family management (Edgell 2006; Ammons and Edgell 2007). For many religious traditions, an ideology of familism – or endowing the family with a position of ascendance over individual interests – may reinforce family ties, as well as help individuals negotiate the challenges of work and family life (Ammons and Edgell 2007; Wilcox and Wolfinger 2008) thereby promoting a sense of meaning and satisfaction. Therefore, when conflict over work and family arise, religious individuals may not only have the support necessary to deal with these issues (e.g., religious support network), but a moral ideology for prioritizing the work and family interface. Indeed, a growing body of work exposes familism as a central ideology to the priorities and practices of congregations, which includes encouraging members to spend less time at work and more time with family (Edgell 2006; Wilcox, Chaves and Franz 2004). These moralistic strategies around family offered by religious communities may help individuals by reducing the stress and anxiety around work-family issues.

It is important to note several limitations of the present study. These issues commend caution in interpreting and generalizing these findings, but they also highlight

important directions for future work. First, these findings are based on analyses of cross-sectional data from the NSRFL sample. Although I have identified important patterns of association, it is impossible to determine the causal order among these variables. As previously stated, the debate regarding the direction between work-family conflict and psychological well-being is still ongoing (Allen et al. 2000). Future studies can build on this initial effort by using multiple waves of data.

Second, due to concerns over the length of the telephone interview and respondent cooperation and fatigue, my dependent variable – e.g., life satisfaction – was measured using a single item. Although numerous studies show that responses to this single question correspond well with external reports by respondents and observed behavior (Diener et al. 1999; Donovan, Halpern and Sargeant 2003; Lim and Putnam 2010), in the future, it would be desirable to incorporate multiple measures of subjective well-being.

Third, while the large minority oversample of the NSRFL is a strength of the data, as previously mentioned, the response rates for the various subgroups were relatively low. Nevertheless, these modest response rates compare favorably to those of many recent nationwide surveys based on random digit dialing (RDD) (CMOR, 2003). Future research should attempt to replicate these findings by collecting data from a larger sample of employed African-Americans.

Despite the limitations of this study, my findings illustrate a clear link between religiousness and African Americans' life satisfaction, and they suggest the potential importance of specific domains of religious involvement in buffering the deleterious effects of work-family conflict on well-being. Thus, my work adds to the evidence on

religion and mental health, and it also augments a growing literature connecting the religious experience of African Americans and work-family conflict (Beale 1997; Marks et al. 2006, 2008). Given the increases rates of work-family conflict in the US, further investigation along the lines suggested above would illuminate the complex linkages between work-family conflict, religion and mental health among African Americans.

Notes

[i] Because the NSRFL weights were not constructed for analyses using employed African American Americans as the analytical sample, I ran additional analyses using unweighted data, and the substantive results were the same as that shown here.

[ii] According to US census data among African Americans in the US: (a) 18% had received a college degree, (b) the median annual income was roughly $32,068, and (c) 44% were married.

[iii] Due to the skewed distribution of the dependent variable, I ran the analyses using logistic regression, with high levels of life satisfaction as the dependent variable (1=life satisfaction great than 8 vs. 0=All others). Roughly 49 % of the data fell into this category. The substantive results were the same: WFC significantly reduced the likelihood of high life satisfaction, religious attendance increased the odds, and religious guidance significantly moderated the effect of WFC on high life satisfaction. I present OLS regression coefficients here for ease of interpretation.

CHAPTER III: CHILDHOOD STRESS, RELIGIOUS INVOLVEMENT AND SELF-PERCEPTION AMONG BLACK AMERICANS

Increasingly, social scientists are examining childhood to gain a better understanding of the fundamental social causes of adult outcomes. Much of the work suggests childhood adversity, variously defined, has long term consequences on a variety of adult outcomes, including educational attainment (Duncan, Yeung, Brooks-Gunn and Smith 1998), life evaluations (Schafer, Ferraro and Mustillo 2011), and employment opportunities (Haveman and Wolfe 1995; Wagmiller et al. 2006). The most important framework in the life course research used to explain the link between childhood adversity and adult outcomes is known as cumulative advantage/disadvantage (CAD). CAD posits that statuses and events from early points in the life course pave the road to an individual's future. Thus, (mis)fortune in early life creates a divergence between individuals that expand over the course of time (Dannefer 1987, 2003; O'Rand 1996). The work on childhood adversity notes that many types of disadvantage occur across various life domains – e.g., economic hardship, parental divorce, or poor childhood health – which cumulate to create a series of unfolding hardships (Hatch 2005).

Research on the relationship between childhood adversity and adult outcomes has focused attention on adult mental health, including adult major depression and depressive symptoms. A majority of the results consistently find that adults who suffer from poor psychological well-being are significantly more likely than others to report exposure to childhood adversities (Chapman et al. 2004; Hammen, Henry and Daley 2000; Turner and Butler 2003; Turner and Lloyd 1995). Although experiences of childhood adversity vary by race/ethnicity in the U.S., much of the research on childhood adversity simply

controls for the effect of race. Additionally, this research has several other critical limitations. First, only single-items of childhood adversity, such as parental divorce (Rodgers 1994) and parental substance abuse (Velleman and Orford 1993), have been used. However, much of the research suggests that childhood adversity is co-occurring and attention to one area may overlook the extent to which adversity influences adult health. Second, there has been a focus on single measures of mental health, usually depression. However, there is reason to believe that childhood adversity may impact a host of adult mental health outcomes. Third, this research has narrowly focused on cumulative risk and perceived trajectories; however, the relationship between cumulative disadvantage and adult outcomes may also be shaped by available resources and human agency (Ferraro and Shippee 2009).

Nonetheless, no studies examine what resources, including socio-cultural institutions such as religion, aid in moderating the effect of childhood adversity on adult mental health. This study seeks to address the gap in the literature by addressing two research questions: (a) Does religious involvement offset the impact of childhood adversity on the self-perception of Black Americans?; and (b) Does religion mitigate (buffer) the harmful effects of childhood adversity on two dimensions of self-perception among Black Americans: self-esteem and self-efficacy? Examining these processes in a sample of Black Americans is overdue. As a result of historical and continued discrimination and isolation, early life chances are distinct for black and white children in the U.S. (Acevedo-Garcia, Osypuk, McArdle and Williams 2008). As a consequence, African Americans may be exposed to dramatically different types of stressors and stress-buffering resources throughout the life course (Geronimus 2001; Geronimus, Hicken,

Keene and Bound 2006; Slopen 2010). Moreover, religion has been found to be an important institutional source of self-worth particularly for African Americans due to the central and pivotal role of the church in the Black community (Ellison 1993; Krause 1995; Lincoln and Mamia 1990; Sherkat and Reed 1991; Taylor, Chatters and Levin 2004).

To address these research questions, I outline a series of theoretical arguments linking childhood adversity, religious involvement and self-perception. I then posit two conceptual models that frame these research questions. I use data from a nationally representative sample of both African Americans and Afro-Caribbean adults to test hypotheses drawn from these two conceptual models. The results are followed by a discussion of the implication of the results, and study limitations and promising directions for future research are noted.

THEORETICAL AND EMPIRICAL BACKGROUND

Childhood Adversity and Mental Health

Self-perception is a complex phenomenon consisting of many parts. The two most familiar dimensions are *self-esteem*, or the general feelings of self-worth or self-value; and *personal-mastery*, or beliefs about one's capabilities to influence and produce events that affect one's environment. These dimensions of self-perception are salient to individual success. To understand the link between childhood adversity and adult self-perception it is important to understand how these cognitive constructs develop. Most social-psychologists agree that self-esteem and mastery are socially and experientially cultivated. That is, a sense of self-worth and mastery develop throughout childhood by accomplishing milestones, and receiving feedback from significant others. Two important

themes in social-psychology may help to shed light on how childhood adversity might influence adult self-esteem and personal mastery.

First, from Cooley's (1902) tradition of the "looking-glass self" stems the process of reflected appraisals, or our perceptions of what others think of us (Cooley 1902; Mead 1934). The process of reflected appraisals suggests that individuals imagine and evaluate themselves based on how they perceive significant others – such as family, teachers, and peers – imagine and evaluate them (Rosenberg 1981). Perceived negative feedback about the self from others – whether real or imagined – may be internalized and undermine healthy self-appraisals. If children perceive themselves as "sickly" or "disadvantaged" based on the actions and reactions of others, these experiences of negative reflected appraisals are likely to erode feelings of self-worth and self-efficacy. For instance, impressions of the self are formed through social comparisons, i.e., by comparing their own situations with others who constitute their reference groups. Individuals who perceive themselves as inferior to others in important characteristics may learn to harbor feelings of inadequacy.

Second, the most effective way of creating a strong sense of efficacy is through mastery experiences: success builds a robust belief in one's personal efficacy, while failure undermines it. Individuals gain confidence about their own competence and ability when they have experience doing so (Bandura 1994). If opportunities to experience success are limited, or non-existent, due to disadvantage during critical developmental stages, such missed opportunities may have long term consequences for the development of self-perception. Moreover, adversity during childhood may make children more susceptible to beliefs and attitudes of learned helplessness, worthlessness,

and hopelessness (Beck 1972). Childhood disadvantage may come in a variety of forms, including deteriorating housing, violent neighborhoods, and parental neglect. Because disadvantaged children are more likely to experience these stressful situations as well as be less capable of coping with such events once they occur (Davis and Ridge, 1997; Ridge, 2002), they may more likely to experience feelings of learned helplessness and hopelessness. Along similar lines, self-efficacy is also created and strengthened by vicarious experiences provided by social models (Bendura 1994). Watching others accomplish goals may also bolster beliefs about one's own capabilities, creating a "if he/she can do it, than I can do it" attitude, especially when one believes the person is similar to oneself. Individuals who perceive themselves as inferior to others in terms of their status, resources, or abilities may cultivate feelings that undermine self-perception. However, the protective elements of friendship may be undermined by the constraints associated with poverty and adversity. Research shows that children from disadvantaged backgrounds may have a hard time forming intimate relationships with others that put them at greater risk for lower self-esteem and personal mastery (Davis and Ridge, 1997; Ridge, 2002).

Most of the work linking adversity and mental health has focused on adult stressors (or conditions) that undermine health. For example, the work of Ross and Mirowsky (2009) and others on the social determinates of adult health outcomes suggests that adversity, (e.g., neighborhood disorder, discrimination, etc.), undermine self-mastery and self-esteem through processes similar to those outlined above (i.e., creating a sense of helplessness and hopelessness). However few researchers have considered how these processes may be an important link to understanding how childhood adversity influences

adult mental health. Moreover, because work on childhood adversity and adult health has been interested in issues of morbidity or mortality, a great deal of attention has been paid to biological explanations, while social determinants of health have largely been ignored. Nevertheless, given the growing body of work interested in childhood conditions and adult mental health, it is apparent that developmental perspectives are needed to understand the link between these conditions.

The Role of Religion

Chapter 1 describes how several decades of work have embraced the approach of defining religion as a multi-dimensional phenomenon, as well as the theorized paths linking religion and mental health via these dimensions (Levin, Taylor and Chatters 1995). While not conclusive, an extensive body of work finds that the main effects of religion on mental well-being are positive. Moreover, the link between religion and mental health may be a particularly advantageous avenue of research due to the unique expression and significance of religion in the Black American experience (Taylor and Chatters 1999; Taylor, Chatters and Levin 2004). However, to my knowledge there is no research on the potential mitigating role of religion in the face of childhood disadvantage on adult self-perception. The remainder of this section will outline a series of arguments linking childhood stressors, religious involvement, and self-perception, with a particular focus on how this relationship may be salient amongst Black Americans.

How might religious involvement mitigate the influence of childhood adversity on adult mental health? Organizational religious involvement, traditionally measured via frequency of religious service attendance, brings together individuals with shared faith commitments and values on a regular basis, to experience worship services and other

activities of ascribed significance. Therefore, congregations offer fertile ground for the cultivation of friendships and support (Ellison and George 1994). In addition, religious communities tend to encourage members to exchange (in)formal support, ranging from tangible aid (i.e., goods and services) to socio-emotional support and informational assistance (Krause 2002). Embeddedness in religious communities via participation in collective worship activities and/or small group interactions (e.g., Bible study groups or religious education classes) provides opportunities to interact with fellow members who offer love and compassion (Ellison and Levin 1998; George, Ellison and Larson 2002). In many instances, these communities may treat individuals as persons of worth and dignity, i.e., as children of God, and may evaluate them on the basis of internal qualities such as their spirituality, kindness and generosity, placing less emphasis on socioeconomic standing or physical health than other groups. Additionally, previous studies have noted, religious communities may encourage positive reflected appraisals, or a person's perception(s) of the self via significant others, among their members (Gilkes 1980; Ellison 1993). Further, congregational involvement may offer individuals a safe setting for personal and spiritual growth, allowing them to develop skills and competencies (e.g., teaching and public speaking) that may lead to positive self-regard among Black Americans (Krause and Van Tran 1989; Ellison 1993).

Although these congregational processes and resources can foster well-being among a wide range of individuals, they may be particularly valuable for Black Americans. Mounting evidence suggests that multiple aspects of religious involvement are particularly beneficial for the psychological well-being of African Americans (Ellison 1993; Krause 2002). Due to the unique quality of Black religious expression, religion

institutions may offer a unique arena to build self-esteem and personal mastery among African Americans. Specifically, organizational religious involvement may provide an opportunity for status legitimization and social interaction amongst Black Americans, which have been traditionally been offered by secular institutions where Blacks have been isolated and excluded (Hughes and Demo 1989). Black churches have traditionally stood at the center of the Black community. Embeddedness in such communities may offer Black adults opportunities to develop various leadership skills, artistic talents and other talents (Lincoln and Maymia 1990; Ellison and Sherkat 1995). For example, Mays and Nicholson's ([1933] 1997) work on Black churches illustrates the role of the institution in generating reflected appraisals that enhances Black self-esteem.

> The opportunity found in the Negro church to be recognized, and to be "somebody," has stimulated the pride and preserved the self-respect of many Negroes who would have been entirely beaten by life, and possibly completely submerged…A truck driver of average or more than ordinary qualities becomes the chairman of the deacon board. A hotel man of some ability is the superintendent of the Sunday church school of a rather important church. A woman who would be hardly noticed, socially or otherwise, becomes a leading woman in the missionary society [p.289].

In addition, due to the therapeutic nature of Black worship, services are a dynamic experience of singing, dancing and other physical movements, vigorous preaching and shouting, where participants may derive feelings of euphoria and liberation from negative emotions which leads to a sense of renewal (Gilkes 1980; Griffith, Young and Smith 1989) in the face of stressful events. The social integration of religious communities and the myriad of opportunities offered by these institutions to cultivate intrinsically valued characteristics may help individuals who have a history of seeing themselves and their situation as helpless and hopeless. Therefore, among individuals who participate

regularly in organizational religious pursuits, such practices may provide opportunities to enhance self-perception.

Non-organizational religious involvement, or private religious pursuits such as prayer, meditation, Bible reading, or other personal spiritual practices, has also been linked to better mental well-being. Private devotional activities may aid individuals in developing a close, personal relationship with God in much the same way relationships are developed with significant others (Pollner 1989; Pargament 1997). Such a close relationship with the divine may lead to a stronger meaning and purpose in life that enhances individual self-perception, as well as cultivating beliefs around being a “child of God” that produced feelings of dignity and worth (Cooper-Lewter and Mitchell 1986). These feelings of divine purpose may be particularly salient in the face of physical and economic adversity. In examining the connection between religion and health using qualitative interviews, Idler (1995) found that many respondents were able to reframe their hardships (i.e., injuries, illness, etc.) into divine purposes such that they were no longer seen as a threat, but as a an opportunity for meaning and growth. During difficult life circumstances, even early life adversity, non-organizational practices such as prayer and Bible study may allow individuals to engage God on a routine basis for solace, comfort and guidance that may ease the burden and bring meaning to stressful events, thereby enhancing self-perception.

Additionally, studies of African Americans reveal that a large number of adults turn to religion when coping with crises and chronic strains (Neighbors, Musick and Williams 1998; Poindextor, Linsk and Warner 1999). For them, religious faith offers a set of principles that order daily affairs, offers a source of guidance and inspiration, and

sustains them in times of difficulty (Ellison and Taylor 1996). Indeed, the work of Idler (1995) suggests religion provides individuals with a salient alternative identity – or a nonphysical sense of self – that deemphasizes physical and economic limitations, but highlights innate religious/spiritual qualities. For these reasons, subjective religious identity may be a particularly helpful coping resource when facing adversity throughout the life course by offering psychological resources that enhance self-esteem and self-mastery (Ellison 1993; Krause and Train 1989; Levin 2001).

Religion, together with parents and peers, remains a primary socialization agent of children and adolescents (Regnerus 2007; Smith and Denton 2005). Religion performs a variety of important socialization functions, including acting as an internal and external social control mechanism (e.g., guilt and sanctions), as well as explicitly and implicitly reinforcing beliefs and attitudes that forbid some things while encouraging others (e.g., forgiveness and moderation). A growing body of research suggests that adolescent religious participation is associated with a variety of salutary outcomes (Regnerus 2007; Smith and Denton 2005). Common explanations are that religion provides youth with "learned competencies" and social and organizational ties (Smith 2003). Regarding learned competencies, churches provide an arena for developing skills and knowledge that contribute to their well-being and improve their life chances. The development of leadership skills, coping skills and cultural capital offered by religious institutions may have a direct influence on self-attribution, thereby enhancing feelings of self-worth and efficacy. The strong social networks of religious institutions may reinforce positive reflected-appraisals (Smith and Denton 2005) through highlighting attributes unrelated to childhood adversity. Perhaps the beliefs and attitudes developed during childhood,

conveyed through religious teachings and networks, shape beliefs and attitudes of self-perception in adulthood, even in the face of such adversity.

Two Conceptual Models

Drawing from the previous discussion, and based on principles from the life stress paradigm, which guides much of the contemporary research on the social patterning of mental health and illness, two conceptual models are used to explore the relationship(s) between childhood stressors, religious involvement, and self-perception among Black Americans (Ellison and Henderson 2011; Pearlin 1989): (a) the offsetting and (b) stress-buffer models. These models were discussed and depicted in Chapter 1, Figures 1.1 and 1.2.

In the first of these models, termed the direct effects (or offsetting effects) model, measures of childhood adversity are posited to be negatively associated with self-worth and personal mastery among Black Americans. The multiple dimensions of religious involvement – i.e., organizational and non-organizational practices, and subjective religiousness – are hypothesized to be positively linked with self-perception. According to this model, the deleterious effects of childhood stressors and the salutary influence of religious engagement partly or entirely offset one another. However, the effects of these constructs are thought to be largely or completely independent of one another. That is, the role of religion is thought to be similar for Black Americans despite experiencing childhood stressors, while the link between childhood stressors and self-perception is not expected to vary according to their levels of religiousness.

The second conceptual model is the moderator (or buffering) model. As in the direct (or offsetting) effects model, childhood adversity is linked with poorer self-

perception, while religious involvement is associated with more positive outcomes. According to the moderation (or buffering) perspective, the association between childhood adversity and mental health, such as self-esteem and self-mastery, is likely to be stronger (i.e., more harmful) among Black Americans with low levels of religious involvement. However, the magnitude of this deleterious association is expected to diminish as levels of religiousness increase. Such a pattern would suggest that religion buffers, or mitigates, the harmful effects of childhood stressors on mental health. The moderation model consists of a cross-product term between childhood adversity and religion (i.e., childhood adversity x religion).

DATA

Data come from the National Survey of American Life: Coping with Stress in the 21st Century (NSAL). The NSAL was collected from 2001 to 2003, by the Program for Research on Black Americans at the University of Michigan's Institute for Social Research. The NSAL is part of the Collaborative Psychiatric Epidemiology Surveys (CPES) data collection. The survey was designed to explore race/ethnic differences in mental disorders, psychological distress, and (in)formal services use among three target populations: African Americans, Afro-Caribbeans, and non-Hispanic Whites (Jackson et al. 2004a, 2004b). The survey was administered to a sample of non-institutionalized English-speaking adults aged 18 or older. The African-American sample is the core sample of the NSAL. However, the NSAL includes the first major probability sample of Caribbean Blacks ever conducted. For the purposes of the survey, Caribbean Blacks were defined as persons who trace their ethnic heritage to a Caribbean country, but who now reside in the US, are racially classified as Black and who are English-speaking (but

may also speak another language) (Jackson et al. 2004a, 2004b). The majority of interviews were conducted using laptop computer-assisted personal interview methods in the homes of respondents.

The overall response rate for the core NSAL national sample was 72.3 %. The response rates for the individual subsamples were 70.7 % for African Americans, 77.7 % for Afro-Caribbeans, and 69.7 % for non-Hispanic, Whites. The supplement samples, which were designed to target areas with high concentrations of persons of Caribbean origin, yielded a weighted response rate of 76.4 %. The core sample consists of 64 primary sampling units [PSUs]. Fifty-six of these primary areas overlap substantially with existing Survey Research Center's National Sample primary areas. The remaining PSUs were chosen from the South in order for the sample to represent African Americans in the proportion in which they are distributed nationally. The African American and white samples were selected exclusively from these targeted geographic segments in proportion to the African American population (i.e., 10% of the census tract). The Caribbean Black sample was selected from two area probability sample frames: the core NSAL sample and an area probability sample of housing units from geographic areas with relatively high density of persons of Caribbean descent (Jackson et al. 2004a, 2004b; Chatters et al. 2009). The sampling methods of the NSAL have been described in detail elsewhere (Jackson et al. 2004a, 2004b). Although sample weights for the NSAL were available, data and subsequent analyses are unweighted. The NSAL sample weights were constructed to be used when combining the other Collaborative Psychiatric Epidemiology Surveys (CPES) and are important tools in redistributing response to mirror the

racial/ethnic distribution of the U.S. However, because the analysis concerns only the NSAL survey sample, employing the sample weights were unnecessary.

Missing data are a common challenge in survey research and the problem is often pronounced in studies that use self-report instruments. There are several tools researchers have in dealing with missing data, such as dropping missing cases entirely or finding alternative imputation solutions. Such alternatives may include mean imputation, multiple imputation or random selection. In the present study, if a respondent failed to complete 50 percent or more of items used to construct an index, they were dropped from the analyses. Here, the two dependent variables – self-esteem and self-mastery – were the only indices used in the analyses. For both outcomes roughly 99 percent of the respondents had no missing items used in the construction of the indices.

Prior to listwise deletion of key missing variables, there were 5191 African Americans (n=3570) and Afro-Caribbeans (n=1621). After listwise deletion, there is an analytical sample of n=4881; thus roughly 7 percent of the sample was dropped from the analyses. In ancillary analyses (not shown), several key differences – e.g., childhood adversity and religious involvement – were found between the analytical sample and the cases dropped from the analyses. Among the deleted cases, respondents had slightly lower levels of self-perception (self-esteem: 3.57 vs. 3.44; mastery: 3.30 vs. 3.13), were more likely to rate their childhood health as poor (1.85 vs. 2.08), have lower mean levels of income (34786.4 vs. 31,035.2) and were slightly older (42.2 vs. 47.2). However, few differences were found with regard to levels of religious involvement.

Dependent Variables

Two measures of self-perception were used in the present study: self-esteem and self-mastery. As previously described, self-esteem reflects an overall self-evaluation or appraisal of a person's worth. To measure self-esteem, respondents were asked their level of (dis)agreement with 12 items that included: (a) I feel that I'm a person of worth, at least on an equal basis with others; (b) I feel I do not have much to be proud of; and (c) I feel that I have a number of good qualities. Responses ranged from 1= "strongly agree" to 4= "strongly disagree." Responses were recoded where necessary so that higher scores indicate higher self-esteem. The Cronbach's alpha is =.81.

The second concept, self-mastery assesses the belief in one's capabilities to organize and execute action required to manage life events. Self mastery was measured by asking respondents their level of (dis) agreement with the following 7 items: (a) There is really no way I can solve some of the problems I have; (b) I feel that I'm being pushed around in life; (c) I have little control over the things that happen to me; (d) I can do just about anything I really set my mind to; (e) I often feel helpless in dealing with the problems of life; (f) What happens to me in the future mostly depends on me; (g) There is little I can do to change many of the important things in life. Responses ranged from 1= "Strongly agree" to 4= "Strongly disagree." Responses were recoded where necessary so that higher scores indicate higher self-mastery. The Cronbach's alpha is =.73.

Key Independent Variables

Childhood Adversity. Respondents were asked two retrospective items regarding their exposure to childhood stress. The first measure, childhood health, was measured via the question, "How would you rate your health as a child, when you were growing up

through age 16?" Responses ranged from 1= "Excellent" to 5= "Poor." Higher scores reflect poorer health during childhood prior to age 16. The second childhood adversity item was childhood welfare, which was gauged by asking, "Did your family ever receive public assistance when you were growing up (prior to 18)?" Reponses ranged from 1= "Yes" to 0= "No."

Religion. Given the multidimensional nature of religion, the analysis includes various facets of religious involvement, including: (1) organizational; (2) non-organizational, and (3) childhood religious socialization. First, organizational religious involvement was assessed using frequency of religious attendance. Respondents were first asked if they had attended religious services since they were 18 years old. Response categories for this variable were dichotomous (i.e., 1=yes vs. 0=no). If respondents answered "yes," they were then asked, "How often do you usually attend religious services?" Responses ranged from 1= "Nearly every day (4 or more times a week)" to 5= "Less than once a year." Due to the skip-pattern of the questionnaire, if respondents answered "no," no additional questions were asked regarding their frequency of religious services attendance. However, in an effort to retain as many cases as possible, if respondents answered "no" they were also included in the frequency of religious service attendance scale. There were roughly n=392 respondents who reported having not attended religious service since they were 18. The new responses categories for religious attendance ranged from 1= "Not since 18 or Never" to 6= "Nearly every day."

Second, non-organizational religious engagement was measured via one item: religious guidance, which was measured via the respondent's (dis)agreement with the question, "I look to God for strength, support and guidance." The response options range

from 1= “Strongly agree” to 4= “Strongly disagree.” Higher scores indicate higher levels of religious guidance.

Finally, one item was used to gauge childhood religious socialization. Respondents were asked, “How important was religion in your home while you were growing up?” Responses ranged from 1= “Very important” to 4= “Not at all important.” Responses were reverse coded so that higher scores indicate that religion was more important in the home of the respondent while growing up or higher levels of childhood religious socialization.

Covariates. The analyses controlled for several background factors that are known or suspected correlates of the dependent and independent variables, and therefore could confound the associations of interest in this study. The models control for the following variables: race/ethnicity (dummy variables for Caribbean Black and African American, with African Americans serving as the reference category); age (in continuous years); sex (1=female; 0=otherwise); education (dummy variables for less than high school; high school diploma; some college (<4 yrs); bachelor’s degree; and graduate school; respondents with a high school diploma serve as the reference category); annual household income (in dollars); marital status (dummy variables were created for cohabiting, divorced, and single, married respondents served as the reference category); nativity (1=foreign born; 0=all others); employment status (1=employed vs. 0= all others); and region of the country (dummy variables were created for Northeast, Midwest and West, South served as the reference category).

In addition to these socio-demographic covariates, measures regarding the respondent’s current health status and childhood SES were included in the models. A

subjective measure of physical health was included in the model. Respondents were asked to rate their overall physical health at the time of the survey. Response categories ranged from 1="Excellent" to 5="Poor" and higher scores indicate poor physical health. A good measure of childhood SES is parental education. The NSAL provides information on the educational attainment of the respondent's mother and father. However, a relatively large portion of the sample (20%) did not know their parents level of education. Mean imputation was used on the missing values for parental education, and as a precaution, subsequent multivariate models control for whether the mean was imputed (dichotomous flag: 1=mean imputation vs. 0=all others).

Analytical Strategy

The data analysis progresses in several steps. First, I examined descriptive statistics and bivariate correlations among key variables of interest. This information is displayed in Tables 3.1 and 3.2, respectively. Next I estimated a series of ordinary least squares (OLS) regression models to test the main effects (or offsetting model) of childhood adversity and religious involvement on the two self-perception measures. These results are presented in Tables 3.3-3.4. Finally, I test the stress-buffering model, which suggest that religious involvement moderates the link between childhood adversity on self-perception among African Americans. I tested this model by adding multiplicative interaction terms (i.e., childhood adversity x religion) to the OLS regression models described above. Prior to calculating the cross-product terms, variables were zero-centered as recommended by Aiken and West (1991), to reduce collinearity between raw product terms and for easier interpretation of the main effects. These results are presented in Table 3.5.

RESULTS

A demographic profile of the sample is presented in Table 3.1. The sample has on average a healthy self-perception. The average level of self-esteem and self-mastery was well above the midpoint (range 1-4). On average, respondents report their health prior to 16 as being “very good” (1.82), while roughly 18% recall receiving public assistance prior to 18 years of age. Consistent with previous research, the mean for the five religious involvement measures are above the midpoint. More specifically, the frequency of religious attendance is 3.82 (range 1-6), which means respondents attend religious services at least once a week. For the other dimensions of religious involvement, respondents pray nearly every day, report that religion was very important in their home while growing up and consider religion (and spirituality) to be very important in their lives. The sample consists of 31% Caribbean Blacks, the average age is roughly 42, and 35% of the sample has a high school diploma at the time of the survey.

Table 3.2 provides bivariate associations between the key study variables. Childhood health has a negative correlation with both self-esteem ($r = -.204$, $p<.001$) and self-mastery ($r=-.161$, $p<.001$). Childhood welfare is negatively correlated with childhood health ($r=-.037$, p.05). Religious attendance, religious guidance and childhood religious socialization are significantly correlated with self-esteem, while religious attendance and childhood religious socialization are positively associated with self-mastery. The association between these three religious involvement variables and self-perception range from .036-.108 ($p<.05$).

Table 3.1: Descriptive Statistics of Variables Used in Chapter III

Variable	Range	Mean ($\hat{p}$)	Std. Dev.
Dependent Variables			
Self-Esteem	1-4	3.57	0.45
Personal Mastery	1-4	3.30	0.59
Key Independent Variables			
Childhood Health	1-5	1.85	1.01
Childhood Welfare	0-1	(.19)	
Religious Involvement Variables			
Attendance	1-6	3.82	1.35
Childhood Religion	1-4	3.62	0.69
Religious Guidance	1-4	3.86	0.48
Covariates			
African American	0-1	(.69)	
Afro-Caribbean	0-1	(.31)	
Gender (Female=1)	0-1	(.63)	
Age	18-94	42.2	16.00
Foreign born	0-1	(.24)	
Married	0-1	(.29)	
Cohabiting	0-1	(.08)	
Never Married	0-1	(.33)	
Divorced/Separated	0-1	(.30)	
Less than High School	0-1	(.23)	
High School Diploma	0-1	(.35)	
Some College (< 4 years)	0-1	(.24)	
College Degree (4 years)	0-1	(.10)	
College Plus (4+ years)	0-1	(.07)	
Income	0-200000	34786.22	30836.65
Employed	0-1	(.68)	
South	0-1	(.54)	
Northeast	0-1	(.30)	
Midwest	0-1	(.11)	
West	0-1	(.05)	
Mother's Education	1-17	10.84	3.00
Father's Education	1-17	10.39	2.88
Subjective health	1-5	2.54	1.08

Note: N=4881; Data come from the National Survey of American Life (NSAL)

Table 3.2: Correlation Matrix of Pearson Correlation Coefficient

	1	**2**	**3**	**4**	**5**	**6**	**7**
1. Self-esteem	-	.663***	-.204***	-.037*	.108***	.088***	.076***
2. Self-mastery		-	-.161***	.016	.060***	.021	.036*
3. Childhood health			-	.115***	-.103	-.009	-.023
4. Childhood welfare				-	-.103***	-.030*	-.144***
5. Attendance					-	.282***	.137***
6. Religious Guidance						-	.167***
7. Childhood religion							-

Note: +p<.10; *p<.05; **p<.01; ***p.>001

Table 3.3: The Estimated Net Effects of Childhood Adversity, Religious Involvement and Covariates on Self-Esteem: OLS Regression [a]

	Self-Esteem		
	(1)	(2)	(3)
Childhood Health	-.045/-.101***		-.045/-.101***
Childhood Welfare	-.010/-.009		-.000/-.000
Attendance		.016/.049***	.017/.050***
Religious Guidance		.066/.071***	.065/.069***
Childhood Religion		.036/.056***	.036/.055***
Afro-Caribbean	.018/.018	.029/.030	.024/.025
Gender (Female=1)	.041/.044***	.019/.021	.022/.024+
Age	.002/.077***	.002/.063***	.002/.056**
Foreign born	-.084/-.080***	-.093/-.088***	-.094/-.089***
Less than High School	-.122/-.114***	-.110/-.112***	-.117/-.110***
Some College (< 4 years)	.067/.065***	.069/.066***	.065/.063***
College Degree (4 years)	.093/.061***	.099/.065***	.093/.061***
College Plus (4+ years)	.100/.058***	.106/.061***	.103/.059***
Cohabit	-.031/-.018	-.020/-.012	-.019/-.011
Divorced/Separated	-.045/-.045**	-.041/-.041*	-.040/-.041*
Never married	-.029/-.031+	-.016/-.017	-.017/-.017
Income	.000/.084***	.000/.096***	.000/.090***
Employed	.092/.095***	.088/.091***	.088/.091***
Northeast	-.014/-.014	-.010/-.010	-.001/-.001
Midwest	.013/.009	.020/.014	.025/.018
West	-.063/-.030*	-.060/-.029*	-.050/-.024+
Mother's education	.005/.034*	.006/.041**	.005/.035*
Father's Education	-.001/-.004	-.000/-.003	-.001/-.004
Subjective health	-.094/-.225	-.101/-.242***	-.090/-.217***
Intercept	3.668***	3.154***	3.23***
Adj. R^2	.181	.185	.193

Note: +p<.10; *p<.05; **p<.01; ***p<.001
[a] Coefficients are unstandardized and standardized coefficients are behind the /. Data are unweighted.

Table 3.4: The Estimated Net Effects of Childhood Adversity, Religious Involvement and Covariates on Self-Mastery: OLS Regression [a]

	Self-Mastery		
	(1)	**(2)**	**(3)**
Childhood Health	-.039/-.066***		-.039/-.067***
Childhood Welfare	.002/.001		.012/.008
Attendance		.020/.046**	.021/.048***
Religious Guidance		.017/.014	.016/.013
Childhood Religion		.039/.046***	.039/.046***
Afro-Caribbean	-.059/-.047*	-.050/-.040+	-.054/-.042+
Gender (Female=1)	.009/.007	-.009/-.007	-.006/-.005
Age	-.001/-.016	-.001/-.029	-.001/-.032+
Foreign born	-.177/-.128***	-.188/-.125***	-.186/.-134***
Less than High School	-.135/-.097***	-.132/-.094***	-.130/-.093***
Some College (< 4 years)	.102/.074***	.101/.074***	.098/.072***
College Degree (4 years)	.122/.061***	.125/.063***	.120/.060***
College Plus (4+ years)	.123/.054***	.124/.054***	.120/.053***
Cohabit	-.025/-.011	-.015/-.007	-.014/-.006
Divorced/Separated	-.021/-.016	-.017/-.013	-.015/-.012
Never married	-.026/-.021	-.015/-.012	-.016/-.013
Income	.000/.086***	.000/.093***	.000/.089***
Employed	.089/.070***	.086/.068***	.086/.068***
Northeast	.045/.035*	.049/.038*	.056/.043*
Midwest	.047/.025+	.055/.029*	.057/.031*
West	-.038/-.014	-.033/-.012	-.025/-.009
Mother's education	.008/.040*	.009/.044**	.008/.040*
Father's Education	.000/.001	.000/.002	.000/.002
Subjective health	-.123/-.225***	-.129/-.235***	-.120/-.219***
Intercept	3.543***	3.211***	3.271***
Adj. R^2	.174	.175	.179

Note: +p<.10; *p<.05; **p<.01; ***p<.001

[a] Coefficients are unstandardized and standardized coefficients are behind the /.
Data are unweighted.

Table 3.3-3.4 displays the results of the OLS regression models. These models proceed as follows for both self-esteem and self-mastery: In the first model, childhood adversity and covariates are used as predictors of self-perception. The second model examines the direct effects of religious involvement on self-perception net of the covariates, thus the childhood adversity measures were removed from the model. The third and final model includes all measures used in the analyses, i.e., childhood adversity, religion and covariates.

Turning to the results for self-esteem, model 1 of Table 3.3 finds that childhood health is inversely related to self-esteem. For example, on average, as childhood health declines the self-esteem of Black Americans decreases (Model 1: $b=-.045$, $\beta=-.101$, $p<.001$). The results of model 2 suggest that, net of covariates, all three measures of religious involvement – i.e., attendance, religious guidance and childhood religion – are positively associated with self-esteem. Model 3, the full model, suggests tentative support for the offsetting model, in which religion was posited to offset the effects – either partially or completely – of childhood adversity on self-esteem. Here, net of childhood health, all three measures of religious involvement continue to have a significant positive effect on self-esteem.

Now turning to the results for self-mastery displayed in Table 3.4. Here again, childhood health is inversely associated with self-mastery (Model 1: $b=-.039$, $\beta=-.066$, $p<.001$), while childhood welfare has no significant effect on this dimension of self-perception. Model 2 finds that net of the covariates, religious attendance (Model 2: $b=.020$, $\beta=.046$, $p<.01$) and childhood religious socialization (Model 2: $b=.039$, $\beta=.046$, $p<.001$) are significantly related to self-mastery and the relationships are positive. Unlike self-esteem, religious guidance has no significant effect on self-mastery (Model 2: $b=.017$, $\beta=.014$, NS). The results of Model 3, find that despite comprehensive controls for childhood adversity and covariates, religious attendance (Model 3:

Table 3.5: Interaction Effects of Childhood Adversity and Religious Involvement on Self-Esteem and Personal Mastery: Stress-Buffering Model [a, b, c, d]

	Self-Esteem			Self-Mastery	
	(1)	(2)	(3)	(1)	(2)
Childhood health	-.045/-.100***	-.045/-.100***		-.039/-.066***	-.040/-.058***
Childhood welfare			-.006/-.005		
Attendance	.017/.050***			.021/.047**	
Religious guidance		.072/.078***			
Childhood religion			.046/.072***		.040/.047***
Childhood health x Religious attendance	.008+			.012*	
Childhood health x Religious guidance		.020**			
Childhood welfare x Childhood religion			-.039*		
Childhood health x Childhood religion					-.028
Adj. R^2	.194	.194	.179	.179	.180
ΔR^2	.001	.001	0	0	.001

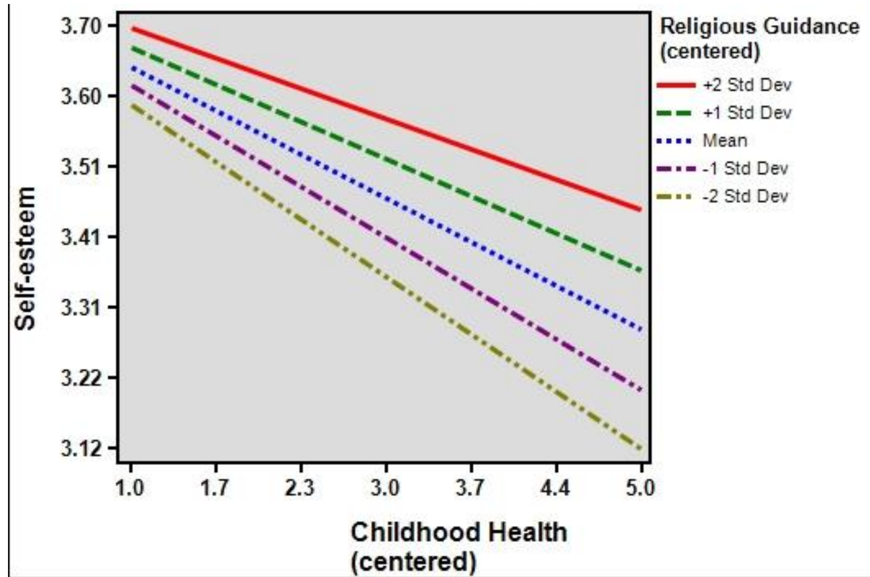
Note: +p<.10; *p<.05; **p<.01;
***p,>001

[a] Coefficients are unstandarized and data are unweighted.

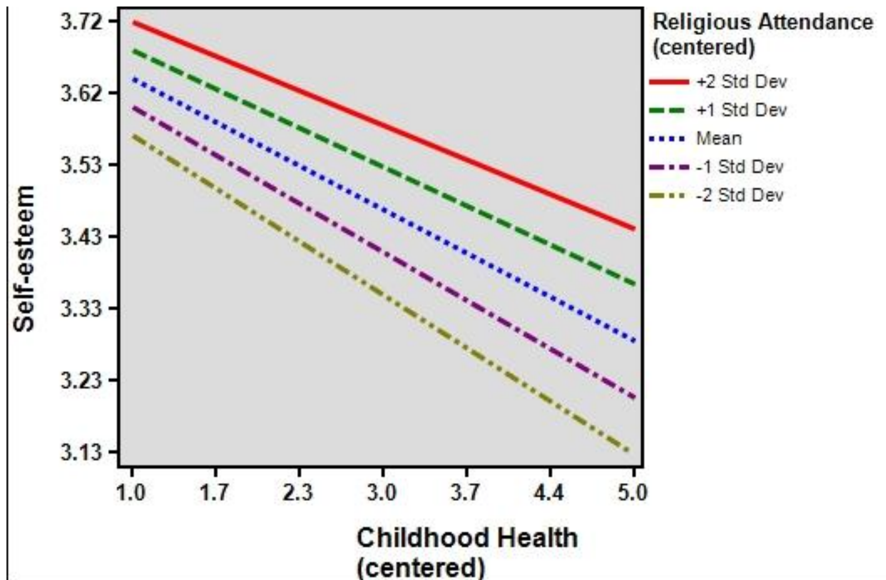
[b] Interactive models control for all the following variables: gender, age, income, child(ren) in household, education, employment status marital status, and parental education.

[c] Components of interaction terms are zero-centered, as recommended by Aiken and West (1991).

[d] All cross-product terms were entered independently into the model.



Religious Guidance
(centered)
+2 Std Dev
+1 Std Dev
Mean
-1 Std Dev
-2 Std Dev
Self-esteem
3.70
3.60
3.51
3.41
3.31
3.22
3.12
1.0
1.7
2.3
3.0
3.7
4.4
5.0
Childhood Health
(centered)



Religious Attendance
(centered)
+2 Std Dev
+1 Std Dev
Mean
-1 Std Dev
-2 Std Dev
Self-esteem
3.72
3.62
3.53
3.43
3.33
3.23
3.13
1.0
1.7
2.3
3.0
3.7
4.4
5.0
Childhood Health
(centered)

$b=.021$, $\beta=.048$, $p<.001$) and religious guidance (Model 3: $b=.039$, $\beta=.046$, $p<.001$) maintain their moderately strong and statistically significant associations with self-mastery.

Table 3.5 displays the results for the stress-buffering model, where religious involvement is hypothesized to buffer, or mitigate, the negative effects of childhood stressors on self-perception. The results reveal mixed support for the hypothesized role of religion in buffering childhood adversity. Specifically, the link between childhood health and levels of self-worth are mitigated by two religious variables: religious guidance ($b=.020$, $p<.01$) and attendance ($b=.008$, $p<.10$). In each case, the apparently deleterious effects of poor childhood health are most pronounced among Black Americans with low levels of religious involvement, and they are substantially weaker among their more religious counterparts. These interactions are displayed in Figures 3.1 and 3.2, respectively.

According to Figure 3.1, the effect of childhood health on self-esteem is attenuated at the highest levels of religious guidance, which is indicated by the solid red (i.e., + 2 standard deviations above the mean) and dashed green lines (i.e., +1 standard deviations above the mean). The slope of these two lines are considerably flatter compared to the two lines falling below the mean, which represent -1 and -2 standard deviations below the mean for religious guidance. Surprisingly, at first glance, it seems childhood religious socialization exacerbates the deleterious effect of childhood welfare on adult self-esteem ($b=-.039$, $p<.05$). However, Figure 3.3 suggests another story. Upon closer inspection, this figure reveals that among individuals who report receiving public assistance as a child, as levels of childhood religious socialization increase (i.e., moving

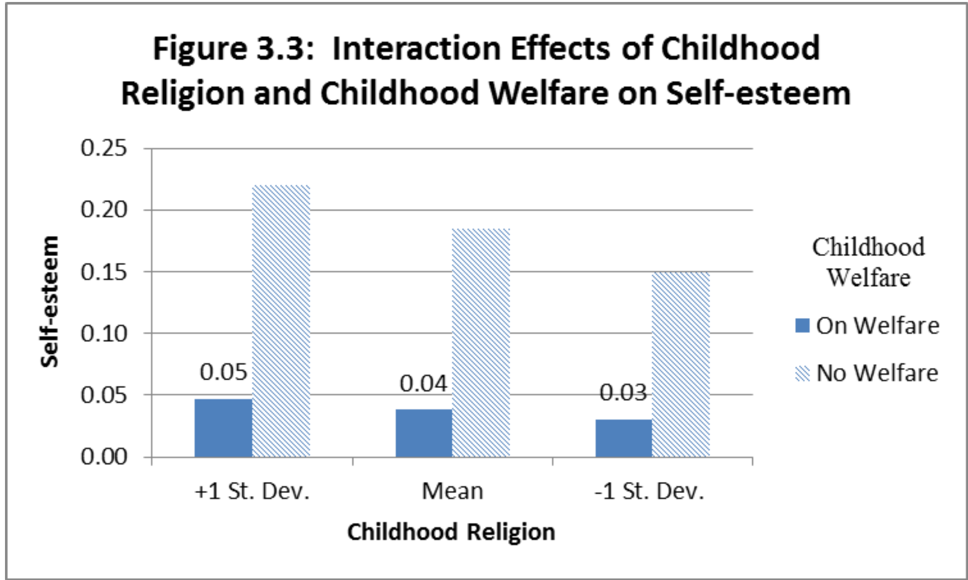
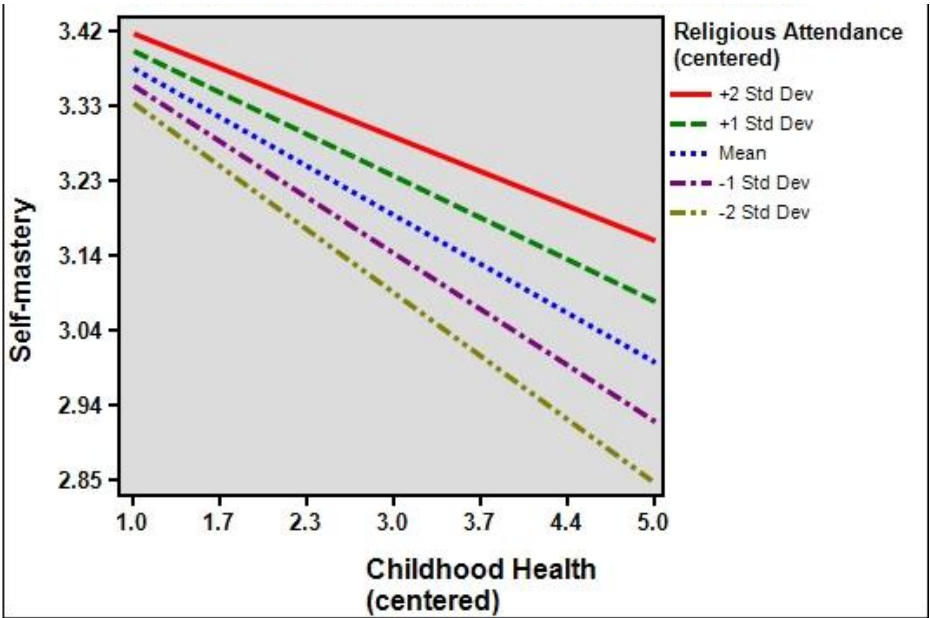
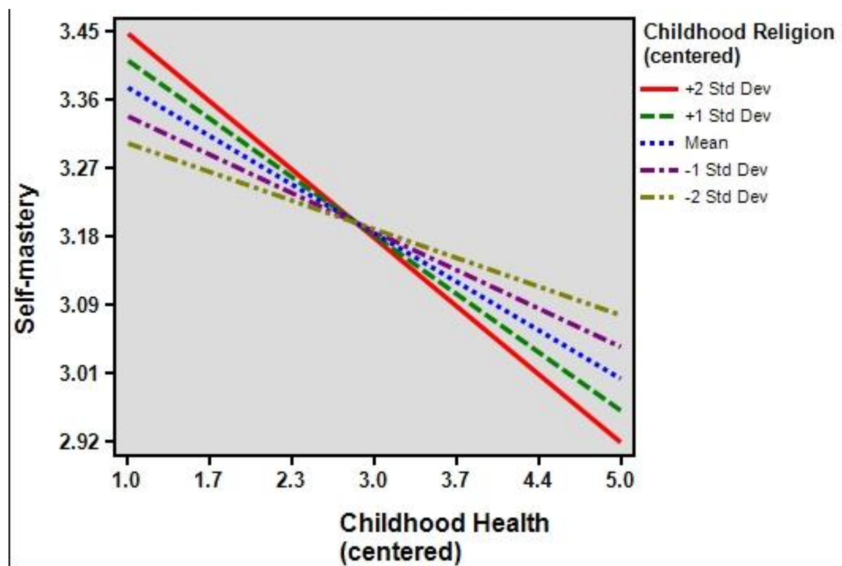


Figure 3.4: Interaction Effects of Childhood Health and Religious Attendance on Self-Mastery.




Childhood Religion
(centered)
+2 Std Dev
+1 Std Dev
Mean
-1 Std Dev
-2 Std Dev
Self-mastery
3.45
3.36
3.27
3.18
3.09
3.01
2.92
1.0
1.7
2.3
3.0
3.7
4.4
5.0
Childhood Health
(centered)

from 1 standard deviation below the mean to 1 standard deviation above it) self-esteem increases slightly.

With regard to personal mastery, only one of the six expected interactive relationships surface in these data. More specifically, the tests of the interaction effects indicate that the effect of childhood health on personal mastery varies by frequency of religious attendance. Here the conditional effects of childhood health and religious attendance can be read using the same logic outlined above on self-esteem. The interaction between childhood health and religious attendance ($b=.012$, $p<.05$) suggests that the deleterious association between childhood health and personal mastery appears to diminish across levels of religious attendance. This interactive effect is illustrated in Figure 3.4. This figure can be read in much the same as Figure 3.1 above.

In the second notable contingent relationship, childhood religious socialization appears to exacerbate the link between childhood health and self-mastery, as indicated by the significant negatively signed cross-product term ($b=-.029$, $p<.01$). The illustration of this interaction in Figure 3.5 suggests that among those with poor childhood health, childhood religious socialization increases levels of self-mastery in Black adults. However, as childhood health declines (i.e., moves from left to right on the x-axis), childhood religious socialization no longer acts as a protective agent and at high levels of childhood religious socialization levels of self-mastery decline. None of the other hypothesized interactive patterns emerge in the data.

In ancillary analyses (not shown), I examined the data for intragroup differences among Black Americans. First, I ran two-way interactions between the various dimensions of religion and ethnicity (Afro-Caribbean=1), which examined for ethnic

differences in the offsetting model. Significant two-way interactions between religion and race would suggest that religious involvement works "differently" for African Americans and Afro-Caribbeans. Surprisingly no significant two-way interactions were found. There appears to be no significant differences between the direct effects of religion on the self-perception of Afro-Caribbeans and African Americans. However, this finding coincides with the current research examining levels of religious involvement among these two groups, which suggests little difference between African Americans and Caribbean Blacks.

Second, three-way interactions were considered. Here religious involvement was proposed to moderate experiences of childhood adversity on self-esteem and self-mastery and that this relationship would vary by ethnicity. Interactions were tested using a model that contains the three-way interaction term (religion x childhood adversity x ethnicity), as well as all lower order terms (Cohen, Cohen, West and Aiken 2003). These lower order terms include three main effect terms (for each of the three predictors) and three two-way interaction terms (for each of the three pairs of predictors). A significant three-way interaction would be indicated by a significant regression coefficient for the three-way interaction term in the aforementioned model. Inspection of the regression coefficients for the three-way interaction terms indicates no significant effects, which suggests no significant differences between the role of religion in buffering the deleterious effects of childhood adversity on self-perception among African Americans and Afro-Caribbeans.

DISCUSSION

Life course research in sociology and epidemiology suggests that childhood adversity, or a bad start in early life, can have enduring consequences on life chances. Because childhood events and experiences are the foundation for lifelong human development, negative conditions perhaps due to inauspicious labels (Sampson and Laub 1997) or socioeconomic strain (Hayward and Gorman 2004) at an early age may compromise adult well-being. While much of the research on this topic seeks to establish a link between negative early-life chances and outcomes during later life, the present study examined whether the socio-cultural institution of religion plays an important role in how people interpret and respond to early adversity. Using two conceptual models – offsetting and stress-buffering – this study examined the relationship between childhood adversity, religious involvement and self-perception amongst a nationally representative group of Black Americans.

The results of the offsetting model, or direct effects model, suggest that organizational and non-organizational religious pursuits are positively associated with self-esteem and self-mastery amongst Black Americans. The relationship between religious attendance and self-perception is well documented (Ellison 1993; Krause 1995). Religious communities provide opportunities to cultivate friendships and talents that enhance a sense of well-being. Such communities offer love, encouragement, and hope, as well as tools and resources for coping and assigning meaning to problems and challenges religious communities are able to influence self-perception.

Additionally, the results of this study suggest that some aspects of religious involvement do indeed mitigate, or protect against, the deleterious effects of childhood

adversity on adult self-perception. More specifically, the findings suggest that religious attendance and religious guidance buffer the negative impact of poor childhood health on self-esteem and self-mastery. These results may suggest that in the face of major disadvantage, religious persons are able to mobilize resources and cultivate a perspective that leads to a more positive interpretation of their adverse experience. Specifically, religious communities may provide members with support, both tangible and emotional, that get them through difficult times. Moreover, religious communities and thier moral teachings may provide members with helpful ways of seeing and interpreting negative life events or circumstances. Current research using the stress-buffering model posits that religious involvement mitigates the harmful effects of racial discrimination (Bierman 2004), financial strain (Ellison and Bradshaw 2005) and work-family conflict (Beale 2001). Therefore, adults who have come through childhood adversity may interpret their struggle as a "lesson from God" or an opportunity for growth or redemption that enhances psychological well-being (McAdams 2006).

Perhaps more importantly, religious communities may offer opportunity to cultivate a self-perception outside of adversity, including religious or spiritual self-identities. The work of Idler (1995) on the concept "nonphysical senses of self" suggests that religious involvement may bring unique opportunities to define essential qualities of the self that are distinct from the body and where people are able and likely to transcend life circumstances. Such opportunities may come from the supportive attention of the religious group and/or the comfort received from prayer and ritual that refocus attention on aspects of the self to which physical or circumstantial issues are irrelevant (Idler 1995).

Surprisingly, the results suggest that childhood religious socialization exacerbates the deleterious influence of childhood health and public assistance use on personal mastery and self-esteem among Black Americans. What might explain this relationship? There are two possible explanations. On one hand, individuals brought up in religious households, and who encounter hardships in early life may come to view life as unfair or unjust, leading them to become disillusioned with and by religion. Encountering religious narratives that proclaim "God will take care of you" may mean little to individuals facing economic and health obstacles. Erroneous religious explanations for adversity may lead to misplaced responsibility and higher levels of dissatisfaction and lower levels of self-efficacy. On the other hand, perhaps early life adversity leads to an (unhealthy) belief that one's life is in God's hands. While research suggests that religious collaboration in the face of uncontrollable events is associated with greater well-being (Friedel 1995), religious overcontrol may be maladaptive. Deferring all control to God may undermine an individual's own sense of personal efficacy and self-worth (Pargament 1997). These explanations are purely speculative and future work examining childhood religious socialization is needed.

It is important to note several limitations of the present study. First, these findings are based on analyses of cross-sectional data from the NSAL sample. Although the study has identified important patterns of association, it is impossible to determine the causal order among these variables. Future studies can build on this initial effort by using multiple waves of data. Second, childhood adversity was measured using a retrospective assessment of childhood adversities, which is subject to recall bias. Although, numerous studies use this analytical approach to measure life adversity, future research should

attempt to replicate these findings by collecting data during different life stages. Third, not all adversities are created equal. The seminal work of Brown and colleagues (Brown 1981; Brown and Harris 1989) demonstrated the importance of determining, through interview probes, which life events are particularly stressful. Future work examining the substantive differences and significance between exposure and severity of adversities is needed.

Despite the limitations of this study, my findings illustrate strong link between religiousness and self-perception in Black Americans. This suggests the potential importance of specific dimensions of religious involvement in buffering the deleterious effects of childhood adversity. Thus, this work adds to previous evidence on religion and mental health among the U.S. Black population, and it also adds to the growing literature on the life course perspective on the role of childhood on adult health. Additional work on the topics outlined above can further illuminate the complex linkages between childhood adversity, religion, and mental health among Black Americans.

CHAPTER IV: RACIAL DISCRIMINATION, RELIGIOUS INVOLVEMENT AND SUBSTANCE ABUSE AMONG BLACK AMERICANS

Alcohol and drug addiction exert an enormous cost in terms of physical disease, mental suffering, disruption of social order and lost productivity in the United States every year. For example, in 2009, 11.8 million Americans were diagnosed with substance abuse disorders (Substance Abuse and Mental Health Services Administration 2010). Although this mental health issue affects people of all racial/ethnic groups, research finds considerable variation among America's racial/ethnic subgroups. Results from the National Survey of Drug Use and Health (NSDUH) suggests that African Americans are less likely to abuse alcohol, but more likely to report using illicit drugs compared to the national average (Substance Abuse and Mental Health Services Administration 2010). An explanation gaining popular acceptance for the racial/ethnic variation in mental health disorders, particularly among African Americans, is that the stress associated with discrimination and disadvantage influences health outcomes (Cannon and Locke 1977; Mirowsky and Ross 1980; Williams and Muhammad 2009). Indeed, there is mounting evidence that experiences of discrimination have a harmful effect on a range of mental health outcomes, including depression, anxiety and psychological distress (Banks, Kohn-Wood and Spencer 2006; Lincoln, Chatters Taylor and Jackson 2007; Utsey and Hook 2007; Williams, Neighbors and Jackson 2003).

The relationship between religion and health has received considerable attention in recent decades. Much of this research suggests that religious indicators, such as religious attendance, subjective religious identity and religious devotion (i.e., frequency of prayer, feelings of closeness to God) are linked with better mental well-being (Koenig,

McCullough and Larson 2001). Furthermore, an emerging body of work suggests that religion may buffer, or protect against, the impact of stress on psychological well-being. This approach involves the life-stress paradigm, in which negative aspects of exposure to stress are modified by psychosocial resources, such as religious involvement (Pearlin 1989). A small body of work suggests that religion may aid individuals in dealing with experiences of discrimination and racist encounters (Bierman 2006; Ellison, Musick and Henderson 2008). Examining the impact of religious involvement and discrimination on the psychological well-being amongst persons of color, particularly African Americans, may be particular salient. Several studies suggest that African American religious expression is "uniquely" positioned to influence health outcomes (Ellison, Hummer, Burdette and Benjamins 2010; Krause 2004; Ellison and Gay 1990). The distinct effect of religious belief, commitment, and institution(s) among African Americans, as compared to their White counterparts, is attributed to the unique role of religion in the Black community both in the historical and contemporary period. Indeed, there is evidence confirming the inimitable role and importance of religious faith and practice among African Americans (Taylor, Chatters and Levin 2004; Chatters and Taylor 1994).

However, the work linking religion and mental health among African Americans is surprisingly limited and narrow in focus. Much of this work has largely ignored the issue of ethnic heterogeneity within the Black racial category. The use of the monolithic category "African American" obscures the growing diversity of Blacks in the US. As a consequence, very little is known about Caribbean Blacks in general and the link between religion and health among this subpopulation in particular.

This work seeks to address the gap in this literature by examining the additive and interactive effects of: (a) multiple aspects of religious involvement; and (b) experiences of discrimination on two DSM-IV substance abuse disorders using data from a nationally representative sample of *both* African-American and Afro-Caribbean adults. After outlining a series of theoretical arguments about the interplay of discrimination, religion, and mental health, I test two alternative conceptual models derived from the life-stress tradition. I then discuss the implications of my findings, note study limitations, and outline promising directions of future research.

THEORETICAL AND EMPIRICAL BACKGROUND

Substance Abuse among African Americans

In investigating race/ethnic differences in substance use and abuse, several important patterns emerge. For instance, Blacks have some of the lowest rates of alcohol use and dependence when compared with other racial/ethnic groups in the U.S. (Turner and Wallace 2003). In regards to illegal drug use, however, African Americans have some of the highest rates of usage. For example, Blacks consistently report higher past-month usage of illicit drugs than Whites (Slobada 1999). Moreover, numerous studies suggest that many individuals who suffer from substance disorder, also suffer from one or more other psychiatric disorders, including other drug use (or alcohol use) disorders and mood disorders (Falk, Yi and Hiller-Sturmhofel 2008; Kessler et al. 1997; Ross 1995). Using data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), Falk and colleagues (2008) found that the prevalence of drug use, weekly drug use and other drug use disorders increased as levels of alcohol consumption and presence of alcohol use disorders increased. Other studies find that when analyzing

lifetime substance use disorders, co-morbidity rates are higher. For instance, among individuals with a lifetime alcohol use disorder, rates of a lifetime drug use disorder range from 20 to 23 percent (Kessler et al. 1997; Ross 1995). In looking at rates of co-occurring substance abuse disorders, co-morbidity rates were generally around 1.1 percent and there was little variability across racial/ethnic groups. The only exception was that of American Indians/Alaskan Natives, where rates were significantly higher than those of the other groups (Falk, Yi and Hiller-Strumfhofel 2008).

Previous research suggests that the toll – i.e., economic, health and social consequences of substance abuse – may be greater for African-Americans (Kandel, Yamaguchi and Chen 1992). For instance, among African Americans, rates of alcohol-related mortality are consistently higher when compared to their White counterparts (Stinson, Dufour, Steffens and Debakey 1993). In addition, African Americans are more likely to die of alcohol-related illnesses and injuries, such as cirrhosis of the liver and alcohol-related car crashes. Moreover, several psychological problems result from drug use among African Americans, including lower levels of self-esteem, depression, anxiety, and suicidal behaviors (Gil-Rivas, Fiorentine and Anglin 1996). Substance use disorders have also been linked to a host of other risk factors, such as criminal activity and participation in risky sexual behavior, particularly among women. Much research in this area suggests that the problems and consequences of substance use may be greater for African Americans than for other racial/ethnic groups.

Several important risk factors have been identified to explain the unique patterns of co-occurring substance use among African Americans, including biological risk factors, neighborhood context and stress. Briefly, the social factors related to substance

abuse among African Americans includes alcohol distribution density – or the number of stores permitted to sell alcohol in a given location – as well as media saturation. These disadvantages are a widely acknowledged problem in communities of color and because of their normativity, proximity and accessibility African Americans are at a disadvantage in remaining substance free (Riell 2002). Additionally, researchers have found that stress more strongly influences alcohol use and drinking problems among African Americans, who cope with stress primarily through avoidance (Cooper et al. 1992). These social factors are powerful predictors of substance use and abuse in the lives of African Americans.

Discrimination: A Definition

Racism is a complex system of domination in which members of racially privileged groups maintain values and ideologies that serve to limit or exclude racial and ethnic minority group members from societal resources, status and other civil liberties (Jones 1997; Bonilla-Silva 1996). Racism often leads to the development of negative attitudes and beliefs toward racial out-groups (prejudice), and differential treatment at multiple levels of society, e.g., individual, cultural, and institutional (discrimination). Considerable scholarly attention has been paid to the destructive role of discrimination in the lives of racial/ethnic minorities in the U.S. (Ren, Amick and Williams 1999). Across qualitative and quantitative accounts, results suggest that African Americans experience discrimination in a broad range of social contexts, leading to considerable distress (Anderson 1991). Indeed, racial prejudice and discrimination gives rise to differences in: (a) socio-economic power (Fiscella and Williams 2004), (b) residential segregation

(Massey 2004), (c) educational opportunity (Farkas 2003), and (d) quality and quantity of health care (Casagrande et al. 2007).

There is no clear consensus on how to measure perceived discrimination. Recent studies have used a variety of measures; one review found 34 different measures of perceived discrimination (Kressin, Raymond and Manze 2008). The relationship between discrimination and health tends to capture two domains of the stressor: major events and daily hassles. Major discriminatory experiences are more likely to be acute and observable, analogous to life events in the stress literature. Such events of racial discrimination tend to interfere with social and economic achievement and may result in serious consequences for life chances and well-being. Such scales as the Major Experiences of Discrimination Scale (Williams, Yu, Jackson and Anderson 1997; Kessler, Mickelson and Williams 1999) capture the commonly used measures of major discrimination in recent studies. The daily hassles of racial discrimination are measured through the Everyday Discrimination Scale, which has several attractive features, including its brevity, good psychometric properties (Krieger et al. 2005), and its use in multiple racial/ethnic populations in the U.S. Daily hassles tend to capture events that involve (but are not limited to) character assaults that may or may not interfere with an individual's SES. While great strides have been made in measuring perceived discrimination, current assessment tends to neglect specific domains of stress, such as work.

Discrimination and Mental Health

Racism is a chronic stressor for many African Americans (Anderson 1991; Feagin 1991; Williams and Muhammad 2009). Recent studies have invoked racial

discrimination as a major explanation for the pervasiveness of health disparities among African Americans (Williams and Muhammad 2009). Almost without exception, studies of discrimination and mental health find that higher levels of discrimination are associated with poor mental health (Banks, Kohn-Wood and Spencer 2006; Lincoln, Chatters Taylor and Jackson 2007; Utsey and Hook 2007; Williams and Mohammed 2009; Williams, Neighbors and Jackson 2003). More specifically, several studies suggest that discrimination and racist encounters may impact cognitive functioning (Salvatore and Shelton 2007), life satisfaction (Amaro, Russo and Johnson 1987), daily mood (Broudy et al. 2007), depression and anxiety (Williams and Muhammad 2009).

What is the link between perceived discrimination and mental health disadvantage? The discrimination and health relationship appears to be both direct and indirect. In the former category, theory suggests that the harmful health effects of discrimination results from the repeated exposure to stress (Mays, Cochran and Barnes 2007), which may come to be expressed in a variety of ways. First, stressful experiences set in motion a physiological response that may include elevated blood pressure and heart rate, the production of biochemical reaction, and a hyper-vigilance that may eventually lead to disease and mortality (Mays, Cochran and Barnes 2007; Jackson, Williams and Torres N.d.). Second, internalized negative messages or stereotypes expressed during race-based discrimination may generate psychic distress, including depression, anxiety, or hostility, as well as a poorer self-evaluation. Such experiences may foster feelings of hopelessness and helplessness, which impair physical and psychological functioning and lead to maladaptive coping strategies, including drug and alcohol use (Jackson, Williams and Torres N.d.). Third, discrimination can affect health indirectly, by withholding vital

resources such as access to jobs, education, housing, and capital (Fix and Turner 1999; Kessler, Mickelson and Williams 1999). The loss of these societal resources may threaten an individual's social status and jeopardize the quality of life for family members and loved ones (Fix and Turner 1999).

Other studies find the impact of discrimination on health to be indirect, that is through its impact on risky and unhealthy behaviors, including behavior that is more directly associated with substance use. A number of studies have produced a consistent pattern of results: African Americans who report more experiences with discrimination are also more likely to report the use of tobacco and alcohol (Bennett et al. 2005; Martin, Tuch and Roman 2003) and are more likely to report lifetime use of marijuana or crack (Borrell et al. 2007). Although there has been a paucity of research on the mechanisms linking discrimination and negative health outcomes, including substance use (Paradies 2006; Williams and Mohammed 2009), two possible explanations include an (a) increase in externalized behaviors, such as anger and aggression, that lead to risky behavior (Borrell et al. 2007), and (b) the use of maladaptive behaviors as coping mechanisms to modify or alleviate unpleasant affect (Martin, Touch and Roman 2003).

Discrimination, Religion and Mental Health

As described in Chapter 1, religion is a complex construct with several theorized pathways that may directly influence mental health. Several decades of work have embraced the approach of defining religion as a multi-dimensional phenomenon, including: (a) organizational religious involvement; (b) non-organizational religious involvement; and (c) subjective religiousness. An extensive body of work finds that the main effects of religion on mental well-being are positive, and potential pathways

connecting religion and mental health were explored in previous chapters (Koenig, Larson and McCullough 2001; Ellison and Levin 1998). Mounting evidence suggests that multiple aspects of religious involvement are particularly beneficial for the psychological well-being of African Americans (Ellison 1993; Krause 2002). Race comparisons across national surveys indicate that Blacks are more religious than Whites on almost every indicator of religion, including service attendance, reading religious texts, prayer and meditation, and subjective religious importance (Taylor, Chatters and Levin 1999; Ellison, Hummer, Burdette and Benjamins 2010). Other studies indicate that African Americans receive and provide more support from church networks than Whites, including support from pastoral leadership and congregation members (Krause 2002; Neighbors, Musick and Williams 1998). This work indicates a distinctive benefit to church-based support for the health and well-being of African Americans, including lower levels of depression (Ellison and Flannelly 2008) and higher rates of self-esteem (Krause 2009; Ellison 1993). In addition, studies of African Americans reveal that a large number of adults turn to religion when coping with crises and chronic strains (Neighbors, Musick and Williams 1998; Poindextor, Linsk and Warner 1999) and religious faith offers a set of principles that order daily affairs, offers a source of guidance and inspiration, and sustains them in times of difficulty (Ellison and Taylor 1996).

So how might religious involvement buffer the deleterious effects of discrimination on substance abuse among African Americans? Because of the central role of religion and its institutions in the lives of African Americans, it is suggested that Black religious expression is distinctive as well as uniquely equipped to deal with the particular events related to racial identity and belonging. Specifically, organizational

religious involvement, generally measured through religious attendance, may influence mental health through regulating health-related conduct by discouraging certain behaviors. Through moral and ethical teachings, most religious communities encourage moderation while discouraging extreme risk-taking behaviors. For instance, church attendance has been found to be positively related to abstinence and negatively related to heavy drinking among African Americans, but not among Whites (Darrow et al. 1992).

Additionally, church based social support may promote a sense of belonging, assistance and love (Ellison and Levin 1998); even as it reinforces personal faith, thereby strengthening meaning systems through which individuals organize and interpret affairs (Berger 1967). Although these congregational processes and resources may foster well-being among a wide range of individuals, they may be particularly valuable for individuals struggling with issues of discrimination and substance use. For example, Chu and Sung (2009) found that religious service attendance at 1-year follow-up was positively associated with African Americans' recovery from substance abuse.

Second, subjective aspects of religious involvement, generally defined as the personal importance or self-assessed strength of one's religious identity, may work by providing believers with an orientating framework for understanding their "place in God's divine plan" (Burdette and Hill 2009; Schieman, Pudrovska and Milkie 2005). Indeed, individuals who look to their religious beliefs for structure and guidance find a comprehensive framework for interpreting and assigning significance to daily affairs, chronic challenges and traumatic events. For these reasons, among individuals for whom subjective religiousness is high, they may be less prone to psychological problems in the face of stressful situations. Moreover, the expected emotional gains from

subjective religiousness may be especially pronounced for individuals who are effectively coping with the stress of harmful racial encounters (Pargament 1997).

Third, childhood religious socialization is an important factor in shaping attitudes, belief and behaviors (Regnerus 2007; Smith and Denton 2005). A growing body of research suggests that adolescent religious participation is associated with a variety of salutary outcomes (Regnerus 2007; Smith and Denton 2005). Explanations for the association between childhood religion and well-being suggest that religion provides individuals with "learned competencies" and social and organizational ties (Smith 2003). More specifically, the development of leadership skills, coping skills and cultural capital offered by religious institutions may have a direct influence on the beliefs and behaviors of adolescents that follow them into adulthood. The strong social networks of religious institutions may act as an external social control mechanism (i.e., negative sanctions) which becomes internalized norms around respectability. Several studies suggest that religious adolescents are less likely to participate in a host of risky behaviors, including sexual promiscuity, delinquency and substance abuse (Regnerus 2007; Smith and Denton 2003). The beliefs and attitudes developed from childhood religious socialization may come to shape the beliefs and attitudes regarding appropriate behaviors, even in the face of adversity as well as how to effectively cope with adversity when it does arise.

Because Black religious expression was established in the context of a hostile host society, its aims and purposes have been uniquely oriented and adapted towards the amelioration and abolishment of the deleterious conditions that impact the well-being of the African Americans community. It offers several unique features that may be particularly salient for mental health, particularly in the face of discrimination. First, the

therapeutic nature of Black religious expression includes a distinctive style of worship that involves a dynamic service of singing, dancing and other physical movements, vigorous preaching and shouting, leading some to suggest participants derive feelings of euphoria and liberation from negative emotions which leads to a sense of renewal (Gilkes 1980; Griffith, Young and Smith 1984). In the face of racial discrimination, an energetic religious service, as well as a loving community that can empathize with racial oppression may wash away the negative feelings that come with such experiences. In another study, Beirman (2006) found that religious attendance has a salutary effect on the harmfulness of racial discrimination on negative affect for Blacks only (Beirman 2006).

Second, Black religious expression emphasizes a distinct perspective on the nature of God, including the love and care of God, as well as His active participation in His creation. These core beliefs aid African Americans' in dealing with the stress and challenges of everyday life, as well as the unique realities facing persons of color (Ellison, Hummer, Burdette and Benjamins 2010). For example, the work of Cooper-Lewter and Mitchell (1986) highlight beliefs integral to African American religious life, which assumes that "God takes good care of [us]…and 'He woke me up this morning, clothed in my right mind (sane and emotionally balanced, despite the cruelties experienced)" (pp. 5). Because African American theology places direct action toward the socio-economic and political empowerment and liberation of Black people, it may help Blacks to cope successfully with discrimination and marginalization (Krause 2004; Lincoln and Mamiya 1990; Taylor, Chatters and Levin 2004).

Religion among Afro-Caribbeans

The Black Caribbean population in the United States increased 67 percent from 1990 to 2000 (Logan and Deane 2003). Caribbean Blacks represent roughly 4.5% of the Black population overall. Despite the growth of the Black foreign-born population, researchers have largely ignored the growing issue of ethnic heterogeneity within the Black racial category. As a consequence, very little is known about Caribbean Blacks in general. The two exceptions being: (a) Waters's (1999) ethnographic study of Caribbean Blacks in Brooklyn, New York; and (b) the growing body of work that has emerged from scholars using the National Survey of American Life (NSAL), which is the first national survey of Afro-Caribbeans. First, in *Black Identities*, Water's (1999) notes that the church plays a prominent role in Black Caribbean life and that Caribbean Blacks are often members of ethnically identified congregations whose membership may be exclusively Black Caribbean or composed of individuals from a particular country. Moreover, Waters (1999) suggests that Black Caribbean churches aid members in the migration process. Religious institutions have facilitated the relocation and resettlement of recent arrivals, provided resources for community groups and organizations, and served as arbiters in the assimilation process (Chatters, Taylor, Bullard and Jackson 2009). Once settled, churches may provide spiritual and economic support to congregants, help to build and strengthen relationships among immigrants, and provide a context for intergenerational family interaction and socialization.

Second, in the recent studies from the NSAL, the authors found that Black Caribbeans have significantly higher levels of religious involvement (i.e., including but not limited to attendance, consumption of religious materials, and religious salience, etc)

than non-Hispanic Whites, even after controlling for possible socio-demographic correlates (Chatters, Bullard, Taylor and Jackson 2009). However, the differences between African Americans and Caribbean Blacks are less striking. The results indicate that only on 4 of 12 indicators – church membership, participation in church activities, reading religious materials and requesting prayer from others – did African Americans report higher levels of religious involvement (Chatters, Bullard, Taylor and Jackson 2009). While the above work has made great strides in examining the possibility of a distinct character of religion among Afro-Caribbeans, there still remains a dearth of research in this area. Moreover, to my knowledge, no work has examined the role of religion for mental health outcomes of this emerging subpopulation and how they may be different from native-born African Americans. This paper seeks to address that gap in this literature.

Two Conceptual Models

Over the past several decades, considerable attention has been paid to the life-stress paradigm and the stress-coping process (Ellison 1994; Pearlin 1989). Both paradigms direct attention to the role of stressful events and conditions in undermining health and well-being, while using social and psychological resources to aid in the process of coping with these stressful events (Mirowsky and Ross 1986; Ellison 1994). Drawing on the previous discussion, I distinguish between two conceptual models of the relationship(s) between race-based discrimination, religious involvement and mental health. These two conceptual models were illustrated in Chapter 1.

The more specific use of these two models in the context of this chapter are as follows. In the first model, or the offsetting effects model, religious resources (e.g.,

church attendance and support, subjective religiousness and childhood religion) are expected to have beneficial effects on mental health, therefore partly or entirely offsetting the impact of racial discrimination on substance abuse. Accord to the second model, or the buffering (or interactive) model, the links between racial discrimination and substance abuse is likely to be more harmful among Black Americans with low levels of religious involvement. By contrast, the beneficial effects of religiousness are most evident among persons facing elevated levels of racial discrimination; that is, the harmful effects of racial discrimination on the likelihood of being diagnosed with a substance abuse disorder are substantially dulled among persons with higher levels of religious resources. The buffering (or interactive) model, involves an interaction term between racial discrimination and religion (e.g., racial discrimination x religion).

DATA

Data come from the National Survey of American Life: Coping with Stress in the 21st Century (NSAL). The NSAL was collected from 2001 to 2003, by the Program for Research on Black Americans at the University of Michigan's Institute for Social Research. The NSAL is part of the Collaborative Psychiatric Epidemiology Surveys (CPES) data collection. The survey was designed to explore race/ethnic differences in mental disorders, psychological distress, and (in)formal services use among three target populations: African American, Afro-Caribbean, and non-Hispanic, Whites (Jackson et al. 2004a, 2004b). The survey was administered to a sample of non-institutionalized English-speaking adults aged 18 or older. The African-American sample is the core sample of the NSAL. However, the NSAL includes the first major probability sample of Caribbean Blacks ever conducted. For the purposes of the survey, Caribbean Blacks

were defined as persons who trace their ethnic heritage to a Caribbean country, but who now reside in the US, are racially classified as Black and who are English-speaking (but may also speak another language) (Jackson et al. 2004a, 2004b). The majority of interviews were conducted using laptop computer-assisted personal interview methods in the homes of respondents.

The overall response rate for the core NSAL national sample was 72.3 %. The response rates for the individual subsamples were 70.7 % for African Americans, 77.7 % for Afro-Caribbeans, and 69.7 % for non-Hispanic Whites. The supplement samples, which were designed to target areas with high concentrations of persons of Caribbean origin, yielded a weighted response rate of 76.4 %. The core sample consists of 64 primary sampling units [PSUs]. Fifty-six of these primary areas overlap substantially with existing Survey Research Center's National Sample primary areas. The remaining PSUs were chosen from the South in order for the sample to represent African Americans in the proportion in which they are distributed nationally. The African American and white samples were selected exclusively from these targeted geographic segments in proportion to the African American population (i.e., 10% of the census tract). The Caribbean Black sample was selected from two area probability sample frames: the core NSAL sample and an area probability sample of housing units from geographic areas with relatively high density of persons of Caribbean descent (Jackson et al. 2004a, 2004b; Chatters et al. 2009). The sampling methods of the NSAL have been described in detail elsewhere (Jackson et al. 2004a, 2004b). Although sample weights for the NSAL were available, data and subsequent analyses are unweighted. The NSAL sample weights were constructed to be used when combining the other Collaborative Psychiatric Epidemiology

Surveys (CPES) and are important tools in redistributing response to mirror the racial/ethnic distribution of the U.S. However, because the analysis was concerned with only the NSAL survey sample, employing the sample weights were unnecessary.

Prior to listwise deletion of key missing variables, there were 5191 African Americans (n=3570) and Afro-Caribbeans (n=1621). After listwise deletion, there is an analytical sample of 4761; that is, roughly 9 percent of the sample was dropped from the analyses. In ancillary analyses (not shown), there are few differences on key variables – e.g., racial discrimination and religious involvement – between the analytical sample used and cases dropped from the analyses. Among the deleted cases, respondents were more likely to be older (46.5 vs. 42.1), have a lower mean income (30782.9 vs. 34940.2), and have lower mean levels of self-esteem and mastery.

Dependent Variable

The NSAL core questionnaire used a modified version of the World Health Organization's Composite International Diagnostic Interview (CIDI) developed for the World Mental Health (WMH) Survey initiative (WMH-CIDI). The WMH-CIDI was designed to be used by trained lay interviewers for the assessment of mental disorders according to the definitions and criteria of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) and the ICD-10 Classification of Mental and Behavioral Disorders (ICD-10). This included measuring the prevalence of mental disorders, the severity and burden of these disorders, and assessing service use in treating these disorders. The WMH-CIDI was developed over the course of more than a year by an international group of collaborators. The intended use of the WMH-CIDI is in epidemiological and cross-cultural studies, as well as for clinical and research purposes.

Two substance abuse variables were examined in the analyses: diagnosis of (a) lifetime alcohol abuse disorder (AUD), and (2) lifetime drug abuse disorder (DUD). The NSAL asked respondent's extensive questions covering DSM-IV criteria for alcohol and drug abuse. Consistent with DSM-IV, lifetime diagnoses of alcohol and drug abuse required one or more of the four abuse criteria in the 12-month period preceding the interview or previously. The two items had response categories ranging from 1= "Diagnosis of DSM-IV drug abuse (or alcohol abuse)" to 0= "No diagnosis." A new four-category nominal unordered abuse variable was created: (a) Alcohol abuse diagnosis, but no drug abuse; (b) Drug abuse diagnosis, but no alcohol abuse; (c) Diagnosis of both drug and alcohol abuse; and (d) no history of DSM-IV abuse diagnosis. The latter category was used as the omitted category.[i]

Key Independent Variables

Discrimination. As previously discussed, recent studies of perceived discrimination and health tend to capture two domains of the stressor: major events and daily hassles. The two measures were developed by Williams and colleagues (Williams, Yu, Jackson and Anderson 1997) from the insights gained from qualitative studies on discrimination. A full list of the items for both indices are displayed in Appendix 4.A. Major events of racial discrimination were constructed from nine items, including police harassment, being unfairly denied a bank loan and being prevented from moving into a neighborhood. Scores on major discrimination are simple counts of the number of items reported as ever having occurred. The Cronbach's alpha is .67.

Day-to-day racial experiences were constructed from 10-items, such as (a) being followed in stores, (b) receiving poor service in restaurants or stores, and (c) people act

afraid of you. Response ranged from the 1= “Almost every day” to 6= “Never”; items were reverse coded so that higher scores indicate respondents experienced more incidents of racial discrimination. In an effort to retain as many cases as possible in the analyses, a zero (0) category was added to the discrimination index representing no experiences of racial discrimination. The Cronbach’s alpha is .89.

Religious Involvement. Current literature conceptualizes religiosity as a multidimensional construct (Levin, Taylor and Chatters 2005). Consistent with this literature three distinct aspects of religious involvement were measured: (a) organizational, (b) non-organizational, and (c) subjective. Organizational religious involvement was assessed using frequency of religious attendance. Respondents were first asked if they had attended religious services since they were 18 years old. Response categories for this variable were dichotomous (i.e., 1=yes vs. 0=no). If respondents answered “yes” they were then asked, “How often do you usually attend religious services?” Responses ranged from 1= “Nearly every day (4 or more times a week)” to 5= “Less than once a year.” Due to the skip-pattern of the questionnaire, if respondents answered “no,” no additional questions were asked regarding their frequency of religious services attendance. However, in an effort to retain as many cases as possible, if respondents answered “no” they were also included in the frequency of religious service attendance scale. There were 392 respondents who reported having not attended religious services since they were 18. The new responses categories for religious attendance ranged from 1= “Not since 18 or Never” to 6= “Nearly every day.”

A second measure of organizational religious involvement is religious support, or the level of integration in a religious community. A composite mean index of religious

support was constructed via responses to 6 items, regarding how often the people in your church: (a) make you feel loved and cared for; (b) make too many demands, (c) express interest and concern in your well-being, etc. Response options range from 1= "Very often" to 4= "Never." Responses to each item were reverse recoded where appropriate, so that higher scores reflect greater religious support. The Cronbach's alpha is = .87.

The second dimension of religiosity, subjective religiousness taps at the internal importance of religion in the life of an individual. A 4-item mean index was constructed to assess the influence of subjective religiousness[ii], including questions on: (a) "How religious are you?" and (b) "How spiritual are you?" Responses ranged from 1= "Very religious [spiritual]" to 4= "Not at all religious [spiritual]." In addition, respondents were asked: (a) "How important is religion in your life?"; (b) "How important is spirituality in your life?" ; and (c) "How important is prayer when you deal with stressful situations? "Responses ranged from 1= "Very important" to 4= "Not at all important." The Cronbach's alpha for the index = .81; responses were recoded so that higher responses indicate higher levels of subjective religiousness. In addition to the subjective religiousness index, respondents were asked, "How important was religion in your home while you were growing up?" Responses ranged from 1= "Very important" to 4= "Not at all important." Higher scores indicate that higher levels of religious salience while growing up.

Covariates. The analyses controlled for several background factors that are known or suspected correlates of my dependent and independent variables, and therefore could confound the associations of interest in this study. The models control for the following variables: age (in continuous years); sex (1=female; 0=male); educational

attainment (dummy-coded into 1=less than high school; 1=high school diploma; 1=some college (<4 yrs); 1=bachelor's degree; and 1=advanced degree, with high school diploma=0 serving as the reference category); annual household income (in dollars); relationship status (dummy-coded into 1=cohabitation, 1=never married, 1=divorced and/or separated, with married=0 serving as the reference category); nativity (1=foreign born; 0=U.S. born); region (1=Midwest, 1=West; 1=Northeast, with 0=South serving as the reference category); child(ren) present in the household (1=1+ Child vs. 0=No Children); employment status (1=Employed vs. 0=All others). In addition to these covariates, the models also control for self-perception measures (e.g., self-esteem and self-mastery), parental education (in years), as well as two proxy measures of socio-economic status that tap into socioeconomic well-being prior to the respondent's 18th birthday (e.g., childhood health and childhood welfare).

Missing Data

Missing data are a common challenge in survey research and the problem is often pronounced in studies that use self-report instruments. There are several tools researchers have in dealing with missing data, such as dropping missing cases entirely or finding alternative imputation solutions. Such alternatives may include mean imputation, multiple imputation or random selection. As previously discussed, these analyses use four key (mean) indices: major events and day-to-day events of racial discrimination, subjective religiousness and religious support. The quantity of missing data varied among these four indices; however, a majority of respondents had zero missing on these constructed scales: 92% for major events, 98% for daily hassles, 99% for subjective religiousness and 80.6% for religious support. There is no consensus among social

scientists in how to deal with missing data, including the percentage of missing data needed to use imputation techniques. In the present, study if 50 percent or more of the cases were missing from the index, the mean (or mode) was imputed for the missing cases. For example, if respondents' failed to answer two or more items in the subjective religiousness index, the mean (3.55) was imputed. In addition, a flag (1=mean imputation vs. 0=all others) was created for all mean imputations and was included in the analyses. Because single imputation techniques (e.g., mean substitution) impute a constant value for the missing scores, it attenuates the variability and correlation, but does not bias the results.

Analytical Approach

In order to examine the two conceptual models – e.g., offsetting and buffering – I estimate multinominal logistic regression models that regress the outcomes on my predictor variables. Coefficients from the multinomial logistic regression models represent differences in the of logits (log of the odds) of the predictor variables on the categories of the outcome. Since changes in logits are not intuitive, I rely on odds ratios (e^{logits}) when substantively interpreting the models in the text.

The first model explores the impact of major and day-to-day experiences of racial discrimination on the substance abuse typology, net of covariates. The second model examines the direct effects of four religion measures – e.g., religious attendance, church support, subjective religiousness and salience of religion growing up – and covariates; therefore, the two discrimination variables are removed from the model. The third model includes all variables used in the analysis: racial discrimination, religious involvement

Table 4.1: Descriptive Statistics of Variables Used in Chapter IV

	Range	Mean ($\hat{p}$)	Std. Dev
Alcohol/No Drugs	0-1	(.04)	
Drugs/No Alcohol	0-1	(.01)	
Both Drugs & Alcohol	0-1	(.04)	
No Substance Abuse History	0-1	(.91)	
Major Racial Discrimination	0-9	.83	1.29
Day-to-Day Racial Discrimination	1-6	1.48	1.40
Attendance	1-6	3.83	1.35
Subjective Religiousness	1-4	3.55	.47
Childhood Religion	1-4	3.62	.70
Religious Support	1-4	2.81	.94
African American	0-1	(.67)	
Afro-Caribbean	0-1	(.31)	
Foreign born	0-1	(.24)	
Gender	0-1	(.63)	
Married	0-1	(.30)	
Cohabiting	0-1	(.08)	
Never Married	0-1	(.33)	
Divorced/Separated	0-1	(.29)	
Less than High School	0-1	(.23)	
High School Diploma	0-1	(.35)	
Some College (< 4 years)	0-1	(.24)	
College Degree (4 years)	0-1	(.10)	
College Plus (4+ years)	0-1	(.07)	
Employed	0-1	(.68)	
Income	0-200,000	34,940.18	30,886.59
Child(ren) in Household	0-1	(.33)	
Age	18-94	42.10	15.97
Father's Education	1-17	10.40	2.89
Mother's Education	1-17	10.85	3.01
South	0-1	(.54)	
Midwest	0-1	(.11)	
West	0-1	(.05)	
Northeast	0-1	(.30)	
Childhood Welfare	0-1	(.19)	
Childhood Health	1-5	1.86	1.01
Self Esteem	1-4	3.57	.45
Self Mastery	1-4	3.30	.59

n=4761; National Survey of American Life (NSAL)

and covariates. The remainder of the analyses test the stress-buffering effects, which requires the inclusion of an interaction term between religious involvement and discrimination (religion x discrimination).

RESULTS

Descriptive statistics on all variables used in the analyses are displayed in Table 4.1. According to these data, 4% of the respondents' have met the criteria for a diagnosis of both lifetime drug and alcohol disorder. On average, respondents report experiencing approximately one event of major discrimination in their lifetime, while respondents report experiencing episodes of day-to-day racial discrimination "a few times a year". In regards to religious involvement, the frequency of attendance has a mean of 3.8 (range=1-6), which means the on average respondents' attend religious services "at least once a month." The other three dimensions of religiousness – i.e., subjective religiousness, church support and salience of religion growing up - are above the midpoint. Finally, in terms of demographic characteristics, approximately 31% of the sample is Afro-Caribbean, roughly 36% have a high school diploma, and 30% were currently married at the time of the survey.

Table 4.2 provides bivariate associations between the key study variables. As expected, episodes of racial discrimination – both major events and daily hassles – are positively associated with the substance abuse outcomes. However, no history of a substance abuse disorder is inversely related to the two measures of racial discrimination. All four measures of religious involvement – e.g., attendance, subjective religiousness, childhood religion and religious support – are positively related to never having been diagnosed with a substance abuse disorder. The association between these four religious

Table 4.2: Correlation Matrix of Pearson Correlation Coefficients

	1	2	3	4	5
1. Alcohol/No Drugs	-	-.024	-.040**	-.646***	.071***
2. Drugs/No Alcohol		-	-.023	-.372***	.016
3. Both Drugs & Alcohol			-	-.622***	.109***
4. No Substance Abuse History				-	-.126***
5. Major Events					-
6. Daily Hassles					
7. Attendance					
8. Subjective Religiousness					
9. Childhood Religion					
10. Religious Support					

	6	7	8	9	10
1. Alcohol/No Drugs	.061***	-.062***	-.046**	-.002	-.035*
2. Drugs/No Alcohol	.057***	-.057***	-.047**	-.025	-.045**
3. Both Drugs & Alcohol	.059***	-.069***	-.031*	-.082***	-.060***
4. No Substance Abuse History	-.103***	.112***	.071***	.064***	.083***
5. Major Events	.382***	-.076***	-.031*	.000	-.091***
6. Daily Hassles	-	-.071***	-.066***	-.031*	-.079***
7. Attendance		-	.468***	.143***	.775***
8. Subjective Religiousness			-	.281***	.422***
9. Childhood Religion				-	.149***
10. Religious Support					-

Note: *p<.05; **p<.01; ***<.001

involvement variables and no history of a substance abuse disorder ranged from roughly .064-.112 ($p<.05$).

Tables 4.3a-c, presents the results of the multinomial logistic regression coefficients. Turning to Table 4.3a, the results of the first model suggests that experiences of major racial discrimination increase the odds of being diagnosed with both lifetime DSM-IV substance abuse disorders by roughly 25% (*odds ratio*=1.25, $p<.001$) relative to those with no history of substance abuse diagnosis. Additionally, when compared to those with no history of DSM-IV substance abuse disorders, day-to-day experiences of racial discrimination also increases the likelihood of being diagnosed with solely an alcohol abuse disorder (odds ratio=1.15, $p<.05$), and a drug abuse disorder with no co-occurring AUD (*odds ratio*=1.31, $p<.01$). It is also important to that with the exception of the outcome "Alcohol/No Drug" (*odds ratio*=.51, $p<.05$), there appears to be no significant difference in these substance abuse outcomes between native African-Americans and Afro-Caribbeans. Here, Afro-Caribbeans are less likely to have been diagnosed with an AUD.

In examining the effects of religious involvement on the life-time DSM-IV substance abuse typology in Table 4.3b, I find that the frequency of religious attendance reduces the odds of being diagnosed with an alcohol abuse disorder with no co-occurring DUD, relative to those with no history, by approximately 22% (*odds ratio* =.78, $p<.05$). Similar results are found for childhood religious socialization (*odds ratio* =.67, $p<.001$). Childhood religiousness reduces the likelihood being diagnosed with both lifetime substance abuse disorders, net of the covariates. Surprisingly, subjective religiousness

Table 4.3a: The Estimated Net Effects of Racial Discrimination, Religious Involvement and Covariates on DSM-IV Lifetime Substance Abuse Typology

	Model 1		
	Alcohol/No Drugs	Drugs/No Alcohol	Drugs & Alcohol
Major Events	.108/1.11+	-.031/.97	.225/1.25***
Daily Hassles	.140/1.15*	.273/1.31**	.041/1.04
Attendance			
Subjective Religiousness			
Childhood Religion			
Religious Support			
Afro-Caribbean	-.676/.51*	-.120/.89	.041/1.04
Foreign born	-.682/.51+	-.897/.41	-1.639/.19***
Gender	-1.333/.26***	-.924/.40**	-1.208/.30***
Cohabiting	.513/1.67+	.781/2.18	.268/1.31
Never Married	-.101/.90	.735/2.09+	-.039/.96
Divorced/Separated	.415/1.52+	.557/1.75	.059/1.06
Less than High School	1.012/2.76***	.661/1.94*	.424/1.53*
Some College (< 4 years)	.467/1.60*	-.230/.79	.050/1.05
College Degree (4 years)	.476/1.61	-.047/.95	-.433/.65
College Plus (4+ years)	-.162/.85	-.786/.46	-.547/.58
Employed	-.049/.95	.690/2.99*	-.037/.96
Income	-.000/1.00	-.000/1.00	-.000/1.00+
Child(ren) in Household	.053/1.05	-.030/.97	-.267/.77
Age	.010/1.01	.002/1.00	-.009/.99
Father's Education	-.013/.99	.097/1.10+	-.022/.98
Mother's Education	.051/1.05	.057/1.06	.104/1.11**
Midwest	.078/1.08	.705/2.02*	.306/1.36
West	.316/1.37	.070/1.07	.322/1.38
Northeast	.411/1.51+	.508/1.66	.683/1.98**
Childhood Welfare	.150/1.16	.739/2.09**	.535/1.71**
Childhood Health	.074/1.08	.282/1.33*	.001/1.00
Self Esteem	-.827/.44***	-.762/.47*	-.585/.56**
Self Mastery	.158/1.17	.117/1.12	-.139/.87
Intercept	-1.809*	-5.218***	-.884
Psuedo R^2	.141	.141	.141

+p<.10; * p <.05; ** p<.01; *** p< .001.
Multinomial logistic regression coefficients are shown. Odds ratios are behind the backslash (/). Reference category is No History of Drug and Alcohol DSM-IV Diagnosis. Data are unweighted.

Table 4.3b: The Estimated Net Effects of Racial Discrimination, Religious Involvement and Covariates on DSM-IV Lifetime Substance Abuse Typology

	Model 2		
	Alcohol/No Drugs	Drugs/No Alcohol	Drugs & Alcohol
Major Events			
Daily Hassles			
Attendance	-.254/.78*	-.190/.83	-.074/.93
Subjective Religiousness	-.120/.82	-.101/.90	.488/1.63*
Childhood Religion	.023/1.02	-.045/.96	-.396/.67***
Religious Support	.221/1.25	.037/1.04	-.066/.94
Afro-Caribbean	-.649/.52*	-.104/.90	.089/1.09
Foreign born	-.742/.48*	-.907/.40+	-1.714/.18***
Gender	-1.335/.26***	-.911/.40**	-1.414/.24***
Cohabiting	.397/1.49	.673/1.96	.275/1.32
Never Married	-.220/.80	.651/1.92	-.084/.92
Divorced/Separated	.425/1.52*	.559/1.75	.150/1.16
Less than High School	.991/2.69***	.598/1.82+	.419/1.52*
Some College (< 4 years)	.570/1.77*	-.159/.85	.134/1.14
College Degree (4 years)	.559/1.75+	.026/1.03	-.411/.66
College Plus (4+ years)	-.031/.97	-.685/.50	-.345/.71
Employed	-.011/.99	.740/2.09*	-.007/.99
Income	-.000/1.00	-.000/1.00	-.000/1.00+
Child(ren) in Household	.071/1.07	-.001/1.00	-.240/.79
Age	.010/1.01	.002/1.00	-.007/.99
Father's Education	-.021/.98	.090/1.09	-.038/.96
Mother's Education	.048/1.05	.053/1.05	.120/1.13***
Midwest	.129/1.14	.683/1.98*	.362/1.44
West	.415/1.51	.101/1.11	.355/1.43
Northeast	.386/1.47+	.436/1.55	.714/2.04**
Childhood Welfare	.128/1.14	.699/2.01*	.533/1.70**
Childhood Health	.093/1.10	.291/1.34*	.006/1.01
Self Esteem	-.813/.44***	-.767/.46*	-.535/.59*
Self Mastery	.078/1.08	.048/1.05	-.186/.83
Intercept	-.274	-3.316*	-.587
Psuedo. R^2	.139	.139	.139

+p<.10; * p <.05; ** p<.01; *** p< .001.
Multinomial logistic regression coefficients are shown. Odds Ratios are behind the backslash (/). Reference category is No History of Drug and Alcohol DSM-IV Diagnosis. Data are unweighted.

Table 4.3c: The Estimated Net Effects of Racial Discrimination, Religious Involvement and Covariates on DSM-IV Lifetime Substance Abuse Typology

	Model 3		
	Alcohol/No Drugs	Drugs/No Alcohol	Drugs & Alcohol
Major Events	.103/1.11+	-.039/.96	.226/1.25***
Daily Hassles	.148/1.16**	.279/1.32**	.043/1.04
Attendance	-.260/.77*	-.120/.82	-.069/.93
Subjective Religiousness	-.212/.81	-.107/.90	.450/1.57*
Childhood Religion	.005/1.01	-.057/.94	-.041/.66***
Religious Support	.251/1.29+	.050/1.05	-.055/.95
Afro-Caribbean	-.668/.51*	-.166/.85	.041/1.04
Foreign born	-.663/.52+	-.850/.43	-1.610/.20***
Gender	-1.223/.29***	-.838/.43**	-1.238/.29***
Cohabiting	.397/1.49	.660/1.93	.309/1.36
Never Married	-.180/.84	.653/1.92	-.022/.98
Divorced/Separated	.370/1.45+	.520/1.68	.103/1.11
Less than High School	1.003/2.73***	.647/1.91*	.423/1.53+
Some College (< 4 years)	.502/1.65*	-.185/.83	.035/1.04
College Degree (4 years)	.511/1.67	-.004/1.00	-.473/.62
College Plus (4+ years)	-.157/.86	-.752/.47	-.561/.57
Employed	-.020/.98	.728/2.07*	-.018/.98
Income	-.000/1.00	-.000/1.00	-.000/1.00+
Child(ren) in Household	.063/1.06	-.014/.99	-.245/.78
Age	.013/1.01+	.006/1.01	-.008/.99
Father's Education	-.015/.99	.096/1.10+	-.026/.98
Mother's Education	.049/1.05	.056/1.06	.112/1.12***
Midwest	.052/1.05	.642/1.90+	.253/1.29
West	.294/1.34	.010/1.01	.232/1.26
Northeast	.342/1.41	.433/1.54	.652/1.92**
Childhood Welfare	.114/1.12	.703/2.02*	.471/1.60*
Childhood Health	.085/1.09	.284/1.33*	.002/1.00
Self Esteem	-.814/.44***	-.733/.48*	-.581/.56**
Self Mastery	.155/1.17	.129/1.14	-1.06/.90
Intercept	-.997	-4.366*	-.880
Psuedo. R^2	.150	.150	.150

+p<.10; * p <.05; ** p<.01; *** p< .001.
Multinomial logistic regression coefficients are shown. Odds Ratios are behind the backslash (/).
Reference category is No History of Drug and Alcohol DSM-IV Diagnosis. Data are unweighted.

increases the odds of being diagnosed with both substance abuse disorders, such that the odds of being diagnosed increases by 63% (*odds ratio* =1.63, p<.05) relative to those with no history of diagnosis and net of covariates.

The results of the model 3 in Table 4.3c follow similar patterns to the previous models. Specifically, relative to those with no history of substance abuse disorders, experiences of major events of racial discrimination increase the odds of being diagnosed with both a DUD and AUD by 11% (odds ratio=1.11, p<.10); however, this effect is only marginally significant at the p<.10 level. Daily hassles increases the odds of developing an AUD, with no co-occurring DUD (odds ratio=1.16, p<.01) by 16 %, as well as a DUD with no co-occurring AUD by 32% (odds ratio= 1.32, p<.01). Turning to the effects of religion, childhood religious socialization continues to reduce the likelihood on being diagnosed with both lifetime substance abuse disorders by 33% (odds ratio=.66, p<.001). For the outcome, alcohol abuse disorder, with no co-occurring drug abuse disorder frequency of religious attendance reduced the odds of this diagnosis by 23% (odds ratio =.77, p<.05). Subjective religiousness continues to increase the likelihood having a both a drug and alcohol disorder by 57% (odds ratio=1.57, p<.05).

Table 4.4 displays the results of the interactive models. As suggested by Aiken and West (1991), all variables used in the interactive methods are zero-centered. In addition, all models control for the covariates used in the previous analysis. I find little support for the role of religion in buffering the deleterious influence of racial discrimination – both major and day-to-day events – on the substance abuse typology. The only exception is the marginally significant interactive effect of day-to-day

discrimination and subjective religiousness. Here, the conditional effect of major events on DUD, with no co-morbidity, was significant and positive (odds ratio=1.13, p<.05). These results can be interpreted as follows: when subjective religiousness is zero (e.g., the mean in this case), every unit increase in daily hassles of racial discrimination increases the odds of being diagnosed with an alcohol abuse disorder (with no DUD) by 13%. The association between subjective religiousness and DUD is insignificant (odds ratio =1.16, NS). The cross-product term estimating the interaction of daily hassles x subjective religion indicates that the deleterious effects of daily hassles decreases the odds of being diagnosed on DUD (with no AUD) as levels of religious subjective religiousness increase (odds ratio=.73, p<.10).

Surprisingly, I find a positive interactive effect between major events of discrimination and attendance (major events x attendance) on the outcome diagnosis of an AUD, with no DUD. Here the conditional effects of religious attendance, when major events is at zero, decreases the likelihood of AUD by 23% (odds ratio=.77, p<.01), while the conditional effect of major events, when attendance is zero, increases the likelihood of an AUD by 13% (odds ratio=1.13, p<.05). The interaction between major events and attendance suggest that, as religious attendance increases, the harmful effect of major events of racial discrimination increases the odds of being diagnosed with an AUD (with no DUD) by 7%. However, this effect is also only marginally significant (p<.10). Also, with the expectation of the outcome “Alcohol/No Drug,” there again appears to be no significant difference in these substance abuse outcomes between native African-

Americans and Afro-Caribbeans. Concerning AUD, Afro-Caribbeans are less likely to have been diagnosed with an alcohol abuse disorder (odds ratio=.51, $p<.05$).

In ancillary analyses (not shown), three-way interactions were considered: religious involvement was proposed to moderate the relationship between African-American's and Afro-Caribbean's experiences of racial discrimination on DSM-IV substance abuse outcomes. The three-way interaction was tested using a model that contains the three-way interaction term (religion x discrimination x ethnicity), as well as all lower order terms (Cohen, Cohen, West and Aiken 2003). These lower order terms include three main effect terms (for each of the three predictors) and three two-way interaction terms (for each of the three pairs of predictors). A significant three-way interaction would be indicated by a significant regression coefficient for the three-way interaction term in the aforementioned model. Inspection of the regression coefficients for the three-way interaction terms indicates no significant effects, which suggests no significant differences between African American and Afro-Caribbean in the role of religion buffering the deleterious effects of discrimination on the substance abuse typology.

Additionally, several studies suggest that the relationship between religion and health is nonlinear. According to Ross (1990), persons firm in their belief or non-belief are better off psychologically than individuals who are uncertain or wavering in their religious commitment. To test this theoretical thread, religious involvement was defined using three categories (high, medium and low) to account for the potential nonlinear

Table 4.4: Interaction Effects of Racial Discrimination and Religious Involvement on DSM-IV Substance Abuse Typology: Stress-Buffering Model [a,b,c,d]

	Alcohol/No Drugs	**Drugs/No Alcohol**
Major events	.125/1.13*	
Daily hassles		.233/1.26*
Attendance	-.270/.76**	
Subjective Religiousness		.145/1.16
Childhood Religion		
Religious Support		
Major events x Attendance	.066/1.07+	
Daily hassles x Subjective religiousness		-.313/.73+
Pseudo R^2	.152	.152
ΔR^2	.002	.002

+p<.10; * p <.05; ** p<.01; *** p< .001.

[a] Multinomial logistic regression coefficients are shown. Odds ratios behind the backslash (/). Reference category is No History of Drug and Alcohol DSM-IV Diagnosis. Data are unweighted.

[b] Interactive models control for all the following variables: gender, age, income, child(ren) in household, education, employment status, marital status, region, childhood SES, parental education and self-perception.

[c] Components of interaction terms are zero-centered, as recommended by Aiken and West (1991).

[d] All cross-product terms were entered independently.

relationship between religious involvement and the substance abuse typology. No significant non-linear relationships were found, the only exception being that high subjective religiousness increases the likelihood of both substance abuse disorders, relative to individuals with low levels subjective religion and net of the discrimination variables and other covariates.

DISCUSSION

The purpose of this paper was to test two conceptual models relating religion, racial discrimination and substance abuse disorders. While the results suggest some support for the offsetting (or direct effects) model, little support was found concerning the stress-buffering role of religion in the face of racial discrimination on developing DSM-IV lifetime substance abuse disorders. More specifically, while the results suggest that daily hassles of racial discrimination significantly impact the likelihood of developing both a DUD and AUD, the importance of childhood religious socialization is the only significant religious involvement predictor to consistently decrease the odds of being diagnosed with adult substance abuse disorders. This finding suggests that childhood religious socialization may have far reaching consequences throughout the life course.

So, what might explain the influence of childhood religion socialization? Protective religious effects into adulthood, perhaps, come down to plausibility structures, or the socio-cultural contexts (or bases) by which beliefs and norms held by an individual are developed and sustained (Berger 1967). Adults who were embedded in religious plausibility structures – i.e., networks of people, organizations and communities connect

by religious orientation – as children are perhaps more likely to frame life-events in religious terms and use religious motivation to guide their decision making throughout the life course that steers them away from engaging in risky behaviors. Put another way, perhaps the convictions and lessons instilled through childhood religious involvement, such as temperance and/or moderation, help to shaping long-term decision making even in the face of stress. In addition, the more proximal factors, including psychological affirmation, identity, creativity and social interaction and integration, of religious institutions remain as protective agents for the psychological well-being of Black American adults (Ellison 1993; Krause 2002). Recent research suggests that Black adolescents are less likely to participate in substance use when compared to White youth (Wallace, Myers and Osai 2004) and the high level of religious involvement among African American adolescents is used to explain this association. Moreover, recent research on the connection between religious involvement and young adult sexuality activity suggests that religious plausibility structures – a network of like-minded friends, family and authorities – provide a comprehensive religious perspective about sexuality leading religious adolescents to be less likely to participate in risky sexual behavior, including fewer lifetime partners and delay sexual onset (Regnerus 2007). These religious plausibility structures formed during childhood may follow individuals throughout the life course and shape attitudes and actions. Although possible, this explanation is clearly speculative and warrants future investigation that explores how childhood religious socialization influences adult decision making.

It is also noteworthy that my results suggest that subjective religiousness increases the likelihood of having been diagnosed with both substance abuse disorders. This finding may suggest that the links between religiosity and substance abuse may be more complex than previously proposed. One possible way to explain this result is that perhaps individuals with a history of drug and alcohol abuse are more likely to turn to religion. Religion has been found to be integral in the recovery process of substance abusers (CASA 2001; Pardini, Plante, Sherman and Stump 2000) . Foundational to Alcoholics Anonymous (AA), Narcotics Anonymous (NA) and other 12-step programs is a belief and connection to a Higher Power as well as the salience of spirituality and spiritual health. For example, religious tenants such as "deciding to turn our will and our lives over to the care of God" and "praying only for knowledge of His will for us and the power to carry that out" are central to the 12-step program, which is one of the most common components of substance abuse treatment and the recovery process. Indeed, one study of AA participants showed significant increases in their spiritual and religious practice as their recovery progressed (Coons 1996), while another study found that among recovering individuals, higher levels of religious faith and spirituality were associated with a more optimistic life orientation, greater perceived social support, higher resilience to stress, and lower levels of anxiety (Pardini, Plante, Sherman and Stump 2000). Because previous substance abusers may turn to religion throughout their recovery process, the positive association found here between subjective religiousness and substance abuse may reflect this reliance on faith during recovery.

Results from the stress buffering models suggest that religious involvement, variously defined, does little to mitigate the deleterious effects of racial discrimination on the odds of being diagnosed with a substance abuse disorder(s). However several studies using the life-stress paradigm have reported inconsistent results (Krause and Van Tran 1989; Strawbridge et al. 1998) and the degree to which religious involvement buffers the effects of chronic stressors appears to vary between stressors (Bierman 2006; Ellison 1994). For instance, Bierman (2006) finds that while discrimination is indeed related to negative affect, only attendance at religious services moderates this relationship for African Americans. His results suggest that the historical involvement of African American religious bodies in combating discrimination may help to explain the specificity of these moderating effects. However, while his results point to the public aspects of religious involvement that aid in protecting against harmful effects on mental health, my results tentatively suggest that private, or subjective forms of religious involvement provide comfort for racial distress among African Americans. As was touched upon in the introduction, a host of research suggests a variety of mechanisms to explain the ability of subjective religiousness to buffer discrimination, including the specificity of Black religious expression towards survival and uplift. A productive avenue for future research would be to examine the buffering role of religious involvement on the deleterious effects of racial discrimination on a variety of mental and physical health outcomes as well as the specific ways religion may aid individuals during difficult times.

Examining variation among Black Americans suggests finds little evidence of ethnic differences between native African Americans and Afro-Caribbeans. In ancillary analyses, two-way interactions between ethnicity and religious involvement reveal no difference between Afro-Caribbeans and African Americans, which suggests that religion works similarly for Black Americans on substance abuse disorders. In addition, three-way interactions examining ethnicity differences on the stress-buffering role of religion on substance abuse disorders finds no differences between African Americans and Caribbean Black. However, these results may not be so surprising. Results of several studies examining race/ethnic differences in psychological well-being as well as religion amongst African Americans, Afro-Caribbeans and non-Hispanic Whites find little differences between Black Americans. For instance, no significant differences were found between Black Americans on major depression disorder, while they were more likely to rate their psychological distress more severely and more disabling, relative to Whites (Williams et al. 2007). Moreover, as suggested in earlier chapters, few differences were found between Black Americans on religious involvement (Chatters, Bullard, Taylor and Jackson 2009). However, just because few within group differences were found does not suggest that religion is not (uniquely) important to Afro-Caribbeans. Indeed, religious involvement still exerts a direct effect on the mental health outcomes of Caribbeans Blacks similar to its effects on African Americans. Nevertheless, future research examining religion and mental health between Black Americans may seek to explore unique facets of Afro-Caribbean religion that are not currently captured in present measures.

Despite the limitations of the present study and the lines for future research, this work has made a unique contribution to the literature on religion and health and the growing body of work on the role of religious involvement in buffering the harmful effects of racial discrimination (Beriman 2006; Ellison, Musick and Henderson 2008). These findings offer a fresh contribution the religion-health connection by using conceptual models derived from the life-stress paradigm as well as examining intragroup differences amongst Black Americans. Further research along the lines outlined above can further illuminate the scope and limits of religious expression – including its institutions, values, and practices – for mitigating contemporary racial/ethnic disparities in health.

Notes

[i] The respective frequencies for the substance abuse typology are: Drugs/No Alcohol n=65; Alcohol/No Drugs n=191; Drugs & Alcohol=178; No History of Abuse n=4337. In ancillary analyses, logistic regression was run on the dichotomous outcomes: 1=Alcohol Abuse Disorder (vs. 0=All Others) and 1=Drug Abuse Disorder (vs. 0=All Others). For these outcomes the frequencies were slightly higher AUD n=369 and DUD n=243. However, the results of these logistic regression models reveal similar results to the models using the substance abuse typology above. In the results of the full model, for the outcome AUD, both major events (odds ratio=1.18, $p<.001$) and daily hassles (odds 1.09, $p<.05$) increases the likelihood of an AUD. Religious attendance (odds ratio= .85) and childhood religious socialization (odds ratio=.80) reduce the odds. For DUD, similar results were found for racial discrimination: major events (odds ratio=1.17, $p<.01$) and daily hassles (odds 1.10, $p<.10$) both increase the odds. However, childhood religious association was the only significant predictor (odds ratio=.72, $p<.001$) for religious involvement. No significant interactions between racial discrimination and religious involvement were found for either AUD or DUD.

[ii] In ancillary analyses, items on the subjective religiousness scale were run separately and the independent effects of each variable were not significant. However, because of the high correlation between the four subjective religiousness variables and since subjective religiousness has been found to be a strong predictor in the religion-health connection, a decision to retain the items and construct a single index was made.

Table 4.a: Appendix Prevalence of Two Types of Discrimination by Ethnicity; Proportions

Prevalence of Lifetime Major Events, by ethnicity	African American	Afro-Caribbean
Fired or Denied a Promotion	.11	.10
Not Hired	.15	.16
Treated Unfairly by Police	.12	.11
Discouraged From Seeking Further Education	.20	.20
Discouraged From Seeking a Job You Want	.06	.07
Landlord/Realtor Refused to Sell or Rent to You	.07	.08
Neighbors Made Life Difficult	.04	.04
Denied Bank Loan	.06	.04
Worse service than others	.04	.04

Prevalence of Day-to-Day Events, by ethnicity	African American	Afro-Caribbean
Treated With Less Courtesy	2.89	2.93
Treated With Less Respect	2.77	2.75
Receive Worse Service	2.67	2.54
People Act as If They Think You Are Not Smart	2.99	2.90
People Act as If They Are Afraid of You	2.34	2.39
People Act as If You Are Dishonest	2.30	2.23
People Act as If They Are Better Than You	3.44	3.24
Called Names or Insulted	1.99	1.94
Threatened or Harassed	1.66	1.67
Followed in Stores	2.50	2.63

CHAPTER V: CONCLUSION

This dissertation has examined the relationship between various forms of stress, religious involvement and psychological well-being among Black Americans. Using two conceptual models adopted from the life stress paradigm, this work sought to address two general research questions: (a) Does religion involvement offset, either partly or entirely, the harmful effect of stress on the psychological well-being of Black Americans?, and (b) Does religious involvement buffer (or mitigate) the deleterious effects of stress on the psychological well-being of Black Americans? In an attempt to address these research questions, I integrated insights from the socio-historical literature on Black religious expression with concepts and models from other areas of social science, including literatures on work-family conflict, racial stratification, social stress, and life course analysis. The results reveal that religion has a unique role in fostering the psychological well-being of Black Americans and may be particularly salient in the face of stress.

In addition to expanding the understanding of the process of religious buffering these analyses make a unique contribution to the literature by analyzing heterogeneity among Black Americans in relation to the religion-health connection. To date only a few studies have examined intragroup differences among Black Americans – i.e., native African Americans and Afro-Caribbeans – in relation to either mental health or religious involvement (Soto, Dawson-Andoh, and BeLue 2011; Taylor and Chatters 2010; Taylor, Chatters and Jackson 2009). Much of this research suggests there are few differences between African Americans and Caribbean Blacks. However, no studies examine the role of religious involvement on psychological well-being between these ethnic groups.

This chapter proceeds as follows: (a) a brief overview of the results of the three empirical chapters will be highlighted, (b) the dissertation's unique contributions to the sociology of religion are acknowledged, and (c) several important avenues for future research on the stress-buffering role of religion the lives of Black Americans are offered. The following is a brief summary of the findings from this dissertation:

Results of Chapter 2:

- Work-family conflict is inversely related to life satisfaction among working African Americans.
- Organizational aspects of religious involvement, i.e., frequency of religious attendance *and* religious support, have a positive association with life satisfaction, thus offering marginal support for the offsetting model.
- Religious guidance buffers (or mitigates) the deleterious effects of work-family conflict on the life satisfaction of working African Americans.

Results of Chapter 3:

- Childhood adversity, particular poor childhood health, shares an inverse relationship with self-esteem and self-mastery among Black Americans.
- In regards to self-esteem: religious attendance, religious guidance and childhood religious socialization partially offset the negative effects of poor childhood health.
- Concerning self-mastery, religious attendance and childhood religious salience exert a positive association, net of childhood adversity and socio-demographic controls.

- There is some evidence for the stress-buffering role of religious attendance and religious guidance in the face of poor childhood health on both self-esteem and self-mastery among Black Americans.
- Results reveal no intragroup differences in the (a) direct (offsetting) effects of religious involvement (net of childhood adversity and covariates) on self-esteem and self-mastery, and (b) the mitigating (buffering) effects of religion and childhood adversity on self-perception among Black Americans.

Results of Chapter 4:

- Major events of racial discrimination significantly increase the odds of having been diagnosed with both a life-time drug *and* alcohol abuse disorder, while incidents of day-to-day racial discrimination have no effect on a diagnosis of a substance abuse disorder.
- Marginal support is found for the offsetting model: childhood religious socialization reduces the odds of being diagnosed with both types of substance abuse disorders.
- There is little support for the moderating (buffering) role of religious involvement on the harmful effects of racial discrimination and substance abuse disorders.
- There are no intragroup differences in the (a) direct (offsetting) effects of religious involvement (net of racial discrimination and covariates) on substance abuse, and (b) the mitigating (buffering) effects of religion and racial discrimination on diagnosis of substance abuse disorders.

Contributions

The results of this dissertation make two noteworthy contributions to the social scientific study of religion. First, these results highlight the importance of recognizing the multi-dimensional nature of religion. Much early work on religion and health relied on single-item measures and examined only the direct effects of religion. In recent decades, however, investigating the internal structure of religious beliefs, attitudes and practices has been a central focus of empirical research (Levin, Taylor and Chatters 1995). Indeed, what much of this research suggests is that different dimensions of religious involvement have varying effects on health and well-being. Most notably, and in the instance of the present results, some of the direct effects of religious involvement on Black American's well-being are not the same dimensions that mitigate the effects of stress. For example, the results from Chapter 2 on work-family conflict, religion and life satisfaction finds that organizational religious attendance has a direct effect on the life satisfaction of African Americans. However, religious guidance – or subjective forms of religious involvement – buffer the deleterious effects of work-family conflict on life satisfaction. These results mirror prior research among African Americans, which suggests that different dimensions of religious involvement exert different effects on particular outcomes (Levin, Chatters and Taylor 1995). In the religious buffering process, the mechanisms that link religion and health may involve different aspects of religious involvement and by using a more detailed conceptual framework, results highlight more clearly what it is about religion that relates to health and well-being (Levin, Taylor and Chatters 1995; Mahoney et al. 1999).

Second, this work is one of the first to examine the religion-health connection in a heterogeneous sample of Black Americans. Implicit in prior literature is the view that Black Americans are a homogeneous group; however, this line of inquiry routinely ignores variation in the form, intensity or pattern of religious involvement among Blacks in the US. Although the work examining religious differences between African Americans and Afro-Caribbeans is still in its infancy, several important patterns have been discovered which may shed light on the results presented here. As noted in the introduction, African Americans and Caribbean Blacks exhibit few differences in their levels of religious involvement (Taylor and Chatters 2010; Chatters, Taylor Bullard and Jackson 2009). The high level of religious involvement among Afro-Caribbeans is consistent with current research on the importance of churches in Black Caribbean communities, as well as the importance of religion among immigrants (Waters 1999; Maynard-Reid 2000; Bashi 2007).

Moreover, a growing body of literature identifies several common facets in religious orientation among African Americans and Black Caribbeans which may suggest a common African heritage (Baldwin and Hopkins 1990; Maynard-Reid 2000). Among African Americans, key aspects of Black religious expression – which have also been linked to better well-being – include collectivist orientation, communal practices, participatory worship styles and direct communication with a divine power. Research on the religious and spiritual systems of the Caribbean region has documented the presence of these distinctive practices similar to African Americans (Baldwin and Hopkins 1990; Black 1999; Maynard-Reid 2000). What these results suggest is that Black Caribbean

churches, similar to African American churches, have adopted a unique religious orientation and practice that may speak to the specific demands of its members. Thereby providing them with an ideology and tradition that enhances well-being. Despite these similarities in the religion-health connection among African Americans and Caribbean Blacks, it would be misleading to view these groups as completely comparable to one another. Future work would benefit from examining the unique aspects of Black Caribbean churches offer members in relation to health.

Future Directions

Future directions in exploring the religion-health connection among Black Americans include the continued use of the two conceptual models presented here, as well as others outlined and adopted by sociologists of religion in the life-stress paradigm. While this work highlights the stress-buffering properties of religion, religion may also exert a variety of influences on health, including the stress-deterrent model and stress-suppressing model (Ellison and Henderson 2011). Future work on the religion-health connection would benefit by considering these other conceptual models offered by the life-stress paradigm. In addition, future directions for the role of religion and health among Black Americans would benefit from investigating these relationship (a) using different health outcomes, particularly physical health, and (b) examining subgroup variation among Black Americans based on gender, class and age. I will conclude by highlighting some important areas of future research on religion and health among Black Americans:

First, current research on religion and health has mainly focused on mental health outcomes, including depression and anxiety (Koenigh 2009, 2011). However, theoretical mechanisms explaining the relationship between religion and health are largely centered on religion's influence in shaping health behaviors and attitudes, through moral teachings and community sanctions (Ellison and Levin 1998). For example, research has shown that religious involvement decreases risk of alcohol and drug abuse (Amey, Albrecht and Miller 1996) while promoting some forms of health behaviors such as preventative care and seatbelt use (Hill, Burdette, Ellison and Musick 2006). Nevertheless, a large body of work suggests that race-ethnic minorities, particularly African Americans, are at a greater risk for developing negative physical health outcomes, including hypertension, diabetes, and obesity (Cossrow and Falkner 2004). A growing literature suggests that religious institutions, particularly Black churches, have a unique position in aiding the black community in addressing these health concerns, in part by implementing church sponsored health programs (Holmes 2004; Tuggle 1995). Future work will seek to examine the relationship between religion and physical health outcomes

A second area of research involves examining socio-demographic variation – i.e., by age, gender and SES – in the role of religious involvement and health. For instance, to date, little research has examined whether religious involvement protects against the noxious effects of environmental stressors and sexual risk behaviors on the psychological well-being of Black youth. Such issues as racial discrimination and neighborhood deterioration have been found to have a negative effect on mental health (Williams, Neighbors, and Jackson 2008; Kawachi and Berkman 2003). However, few studies

examine whether religious involvement buffers against these influences among Black youth. One avenue for future research would seek to examine the link between religious involvement, stress, and the psychosocial outcomes of (a) depression, (b) self-esteem and (c) self-efficacy in Black youth as well as examining whether these relationships vary by gender, socioeconomic status and demographic region.

This dissertation and the future work proposed within seeks to contribute to a growing area of research that takes an anti-deficit approach, or resilience perspective, to the lives of Black Americans. This growing paradigm is interested in exploring and understanding the socio-cultural resources communities of color use in the face of historical and continued challenges in the US. Findings from this study validate the fact that religion continues to play a vital role in the lives of Black Americans and must not be overlooked as a salient resource in the Black community.

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