# And Life is Worth the Living Just Because He Lives?: The Protective and Promotive Role of Religious Involvement Against Suicide Risk Among Black Adolescents

by

Yasmin Crystal Olayinka Cole-Lewis

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## **Doctoral Committee:**

Professor Cheryl A. King, Co-Chair Professor Jacqueline Simone Mattis, Co-Chair Research Assistant Professor Shervin Assari Professor Cleopatra Howard Caldwell Professor Robert Joseph Taylor

## Yasmin Crystal Olayinka Cole-Lewis ycolelew@umich.edu

ORCID iD: 0000-0001-7460-9028

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#### **Dedication**

I dedicate this document to my first and most loved teacher, Mrs. Kathleen Rebecca Onikeh Cole, née Johnson. Gramma, you taught me the importance of reading, writing, and arithmetic. You shaped my love for education and the art of teaching. You modeled for me an unwavering respect and the highest regard for teachers. Most importantly, you instilled in me a love for the Lord. I love you and I thank you. I am who I am because of the amazingly intelligent, strong, and beautiful woman you are, and the amazingly intelligent, strong, and beautiful children you raised. You are and have always been the perfect grandmother for me. I thank God for blessing you with 90 years of life, a third of which I have been honored to share with you. I pray that you see many, many more years. I can never repay you, so I hope this document and this accomplishment serve as small tokens of my appreciation for you, your life, your sacrifices, and your work. May God bless you and keep you, always and forevermore.

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#### **Abstract**

Suicide is the second leading cause of death among youth ages 12-17 years. Within a 10year span from 2004-2014, 2,225 Black youth ages 10-19 died by suicide. Over a 35-year period suicide rates increased 126% in Black youth ages 15-19, and 233% in Black youth ages 10-14. Further, in 2015, a national survey reported that 14.5% of Black youth had serious thoughts of suicide in the past 12 months, 13.7% had made suicide plans, and 8.9% had attempted suicide. Related to this, national studies revealed high rates of suicide risk factors among young people including: depression or depressive symptoms (29.9% of youth); suicidal ideation (17.7% of youth); suicide attempts (8.6% of youth); psychiatric disorders such as anxiety (24.9% of youth); disruptive behavior disorders (16.3% of youth); and substance use disorders (8.3% of youth). Despite increased rates of suicide among Black youth, there is limited research on suicide risk and protective factors among Black youth. Importantly, religious involvement is a possible protective factor for Black youth, as it has been linked to more positive mental health outcomes among Black adults. This dissertation, comprised of two empirical studies, evaluates evidence regarding the promotive and protective effects of religious involvement against suicide risk among Black adolescents in the context of the relational risk factors of everyday discrimination (routine encounters with subtle, unfair treatment) and interpersonal problems (low social connectedness, bully victimization, and/or perpetration). Study 1 uses cross-sectional data from a nationally representative sample of African American and Caribbean Black youth to pursue three aims: 1) to examine the relation between discrimination and suicide risk factors (suicidal

ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders); 2) to examine the relation between religious involvement, specifically, private religious practices, religious (church-based) support, and organizational religiousness, and discrimination and suicide risk factors; and 3) to explore whether the relation between discrimination and suicide risk factors differs by gender or ethnicity. Study 2 uses data from a longitudinal study of a more selected sample of Black youth with interpersonal problems to pursue two aims: 1) to examine the prospective relation between religious involvement and depressive symptoms and suicidal ideation; and 2) to examine whether this relation differs over time and by gender. Exploring the protective role of religious involvement among Black youth who experience relational risk has important implications for reducing suicide risk among Black adolescents.

Keywords: religion, spiritualty, Black youth, suicide risk

## Chapter I

#### Introduction

It is difficult to imagine a problem so profound, a hurt so deep, a burden so unbearable, that a child can think of no other solution than to end his or her own life. Yet, over 2,200 Black<sup>1</sup> adolescents, ages 10-19 years, died by suicide between 2004 and 2014. Black adolescent suicide rates increased 126% in youth ages 15-19 years, and 233% in youth ages 10-14 years over a 35year period (Bennett Jr. & Joe, 2015; Borowsky, Ireland, & Resnick, 2001). Further, data from the Centers for Disease Control and Prevention (CDC) indicate that suicide is now the second leading cause of death among all youth ages 12-17 years, and the third leading cause of death among Black youth ages 13-17 years (CDC, 2014; CDC, 2010). The increased suicide rate among Black youth is a significant public health concern, yet there is relatively limited research on factors that either exacerbate or reduce the risk of suicide among these youth (Bridge, Asti, Horowitz, & et al., 2015; Willis, Coombs, Cockerham, & Frison, 2002). More recently, though, given the drastic increase in suicide rates among Black youth, researchers have identified some suicide risk factors for Black youth, including behavior disorders, mood disorders, and psychiatric disorders (Joe, Banks, & BeLue, 2016). However, the factors that may protect against suicide among Black youth remains under-examined. This dissertation will evaluate evidence regarding the promotive and protective effects of religious involvement against suicide risk

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<sup>&</sup>lt;sup>1</sup> I utilize the term "Black" to refer to individuals who identify as African, Afri-Caribbean, African American, or any combination of these. This term is often used interchangeably with "African American," however in this dissertation I will consistently use the term Black, unless referencing studies that explicitly use other labels. In these cases, I will utilize the term used by the original authors to describe individuals who self-identify as members of the African Diaspora.

among Black adolescents in the context of the relational risk factors of everyday discrimination (routine encounters with subtle, unfair treatment) and interpersonal problems (low social connectedness, bully victimization, and/or perpetration).

Empirical studies have identified a range of factors that place youth at heightened risk for suicide. Having previously attempted suicide is one of the strongest predictors of suicide risk (Lewinsohn, Rohde, & Seeley, 1994). A national study of youth ages 13-17 years identified a 12.1% lifetime prevalence of suicide ideation, a 4% prevalence of making suicide plans, and a 4.1% prevalence of making a suicide attempt among these youth (Nock et al., 2013). Of those who experienced suicide ideation, 33.4% developed a suicide plan, and 33.9% made a suicide attempt (Nock et al., 2013). Non-suicidal self-injury, or inducing intentional harm to oneself without the suicidal intent, was another factor associated with suicide risk (Jacobson & Gould, 2007; Klonsky, May, & Glenn, 2013; Muehlenkamp & Gutierrez, 2007). Beyond ideation and overt actions such as making plans to self-harm, researchers have identified psychopathology, including depressive disorders, substance abuse, disruptive disorders (e.g., conduct disorder), anxiety related disorders (e.g., post-traumatic stress disorder, panic attacks), as another major risk factor (Gould, Greenberg, Velting, & Shaffer, 2003).

Although some sources of risk for suicide may be internal (i.e., intrapsychic), other sources of risk may emerge in the social ecology of youth. These external and ecological risk factors for youth suicide include family history of suicidal behavior, school or work problems, and access to firearms (Gould et al., 2003). Additional environmental risk factors include stressful life events (e.g., interpersonal losses, bullying) (Fergusson, Woodward, & Horwood, 2000; Gould et al., 2003); sexual abuse (Johnson et al., 2002); physical abuse, exposure to violence, or witnessing violence (O'Leary et al., 2006).

It is important to note that much of the extant research regarding suicide risk has focused on White youth. As such, although suicide is a leading cause of death for Black youth, little attention has been paid to risk, protective, and cultural factors relevant to Black youth (Willis et al., 2002). The small body of existing work that has identified risk factors among Black youth, specifically has concluded that for Black youth, the risk factors for suicide include depression, hopelessness (Molock, Puri, Matlin, & Barksdale, 2006), and anxiety (Joe, 2006).

The skeletal nature of the existing research on risk and protective factors for suicide among Black youth is a point of concern. Indeed, adolescence is a time of vulnerability when youth of all backgrounds are negotiating myriad changes related to social, interpersonal and intrapersonal identity, academic challenges, and shifts in expectations (Eccles et al., 1993). However, the developmental demands of adolescence may be especially complex for Black youth given that in addition to the typical stressors that youth face during adolescence, Black youth are also negotiating the meanings and consequences of their identity as ethnoracial minority group members. Black youth may be particularly aware of the implications that minority group membership has for their opportunities, experiences, and relationships, especially in the context of structural, environmental, and interpersonal discrimination (Richardson et al., 2015; Spencer, 2006; Spencer, Dupree, & Hartmann, 1997). Navigating these realities places ethnic minority youth at increased risk for deleterious effects on physical and mental health (Hope, Hoggard, & Thomas, 2015). In fact, empirical research demonstrates that exposure to discrimination places Black youth at increased risk for depressive symptoms (Brody et al., 2006; Greene, Way, & Pahl, 2006; Smith-Bynum, Lambert, English, & Ialongo, 2014) and for suicide (King & Merchant, 2008; Krieger, 1999, 2014). The evidence for a link between discrimination and suicide risk, while compelling, is limited in that it is based largely on findings from

relatively small, non-representative samples of youth. The present study advances existing knowledge by exploring the link between discrimination and experiences that are known to be risks for suicide (e.g., depression, anxiety) among a nationally representative sample of Black youth.

This study augments research on the risks associated with exposure to discrimination, by attending to other social ecological factors that have been shown to be associated with heightened suicide risk in studies of smaller, non-representative samples of Black youth. For example, studies exploring life stress as a risk factor for suicide, suggest that Black adolescents who live in low-income, under-resourced communities may be disproportionately exposed to violence and may be disproportionately likely to be socially isolated—factors that have been linked to greater suicide risk (Merchant, Kramer, Joe, Venkataraman, & King, 2009; Price, Dake, & Kucharewski, 2001). Black youth who have interpersonal problems, such as low social connectedness or involvement in victimization—including "bully victims" (youth who are victims of bullying), perpetrators of bullying, or victim-perpetrators (youth who are both victims and perpetrators of bullying)—are at increased risk for depression and suicidal ideation (Cole-Lewis, Gipson, Opperman, Arango, & King, 2016; King & Merchant, 2008). Despite increased risk, it is clear that not all Black youth who are exposed to violence, who are socially isolated, or who have interpersonal problems experience depression, suicidal ideation, or related negative outcomes. As such, examination of the resources and assets that buffer against suicide for some youth facing life stress, is thus warranted.

Extant literature identifies some protective factors such as family support, religious coping, and negative attitudes towards suicide among predominately White samples of youth (Greening & Stoppelbein, 2002; Molock, Matlin, Barksdale, Puri, & Lyles, 2008). However, the

extant literature identifying factors that protect against suicide risk among Black youth is sparse, rarely takes into account the heterogeneity within Black populations, and often focuses on small, non-representative samples. Only within the last few years have researchers begun to examine the risk as well as protective factors for Black youth suicide and pay particular attention to the heterogeneity among Black youth using nationally representative samples of Caribbean and African American Black youth (Assari, Lankarani, & Caldwell, 2017; Butler-Barnes et al., 2016; Hope, Assari, Cole-Lewis, & Caldwell, 2017; Pachter, Caldwell, & Jackson, 2017; Rose, Finigan-Carr, & Joe, 2016; Rose, Joe, Shields, & Caldwell, 2014). Findings of these recent studies suggest that discrimination is a risk factor for African American and Caribbean Black youths' poor mental health outcomes, and religious support may function as a protective factor for African American and Caribbean Black youth. The present dissertation builds on this work.

Religiosity as a protective factor

Studies conducted among adults suggest that religious involvement can positively impact mental health, especially among Black populations. However, few studies have explored the role of religious involvement on suicide risk among Black adolescents (Molock et al., 2006). Molock and colleagues (2006) identified complex relations between religious coping and both suicidal ideation and suicide attempts among African American high school students. The authors report that among African American youth religious coping was not associated with suicidal ideation, however self-directive religious coping (i.e., solving one's problems without God's help) was associated with having previously made a suicide attempt (Molock, et al., 2006). However, African American youth who utilized collaborative religious coping (i.e., those who sought to solve their problems with God's help) reported having more reasons for living than youth who did not utilize collaborative religious coping (Molock et al., 2006). A more recent study by Hope

and colleagues (2017) identified among a sample of ethnically diverse Black youth that those who reported having religious support were less likely to meet criteria for any psychiatric disorder. Given the complexities of religious involvement in individuals' lives, it is important to continue examining the ways that various dimensions and manifestations of religious involvement may influence suicide risk among Black youth. Understanding the influence of religious involvement among Black adolescents living within challenging environmental contexts could help inform the development of prevention strategies aimed at reducing the drastically increased rates of suicide among Black youth (Molock, Matlin, Barksdale, Puri, & Lyles, 2008).

Any effort to understand the role that religious involvement plays in Black youths' lives and their suicide risk must attend to factors that are empirically linked to religious involvement.

One such factor is gender. Another is ethnicity.

Gender, suicide risk and religiosity

Males and females report varying degrees of experience across suicide risk and protective factors. The suicide mortality rate for Black males is consistently higher than that of Black females (Centers for Disease Control and Prevention, 2014). Specifically, boys perceive more discriminatory incidents than girls (Seaton, Caldwell, Sellers, & Jackson, 2008); yet, girls report more depressive symptoms than boys (Fitzpatrick, Dulin, & Piko, 2010) and are at higher risk for suicidal ideation and attempts than boys (Greening & Stoppelbein, 2002; Joe et al., 2009). Despite these comparatively elevated suicide risk factors among girls, boys have higher rates of death by suicide than girls (Cash & Bridge, 2009; CDC, 2014). Importantly, a separate body of work regarding protective factors demonstrates that girls report greater religious involvement than boys (Greening & Stoppelbein, 2002; Rew & Wong, 2006). Given gender differences in

suicide risk and suicide completion experienced by Black youth, and given gender differences in rates of religious involvement (a factor that is believed to have protective effects), we have good reason to explore the extent to which specific attention to gender may provide additional insight about both youths' suicide risk and the factors that may protect youth from these risks.

The conceptual framing for this work

Utilizing a strengths-based risk and resilience framework (Fergus & Zimmerman, 2005; Masten, 2011) as theoretical grounding, this dissertation examines factors associated with increased risk for suicide among Black youth, and the potentially protective influence of religious involvement on these factors. Resilience, or "the process of overcoming the negative effects of risk exposure, coping successfully with traumatic experiences, and avoiding the negative trajectories associated with risks," (Fergus & Zimmerman, 2005, p. 399) requires the presence of risk, and more importantly, promotive and protective factors, to contextualize the challenges youth face and better understand pathways to positive and healthy youth development. Fergus and Zimmerman (2005) describe promotive or protective factors as assets (e.g., factors that youth possess such as coping skills) or resources (e.g., external factors such as supportive parents or communities) that can help youth overcome risk.

This dissertation examines suicide risk in the context of interpersonal problems and discrimination among Black youth, and also considers the role of religious involvement as both a promotive and protective factor. In this regard these studies examines what Fergus and Zimmerman (2005) describe as a "compensatory model" of resilience and a "protective model" of resilience. The compensatory model of resilience examines the simultaneous contributions of stressors that youth may face within the context of the supports to which youth have access. This model suggests that risk and promotive factors operate independently; while the risk factor

increases the likelihood of a poor outcome, the promotive factor simultaneously increases the likelihood of a good outcome (Fergus & Zimmerman, 2005). Further, the compensatory model is effectively tested by identifying the direct effects of a promotive factor that operates in the opposite direction of a risk factor. The "protective model" of resilience examines the extent to which the presence of the protective factor influences the relation between the risk factor and the outcome (Fergus & Zimmerman, 2005). This model is effectively tested by using interaction terms in multiple regression analyses where the interaction term reveals a reduced likelihood that the risk factor will result in a poor outcome in the presence of the protective factor (Fergus & Zimmerman, 2005).

There is evidence that religious involvement may be both promotive and protective for youth against suicide risk. However, there is also a lack of robust evidence regarding the promotive and protective nature of religious involvement on suicide risk in the context of relational risk factors. Given the paucity of evidence on these relations among Black youth, this dissertation seeks to better understand the nature of the relation between religious involvement and suicide risk among Black youth. To that end, the overall aim of this dissertation is to examine the role of religious involvement as a promotive and protective factor against suicide risk factors for Black youth who report experiencing relational risk factors.

This dissertation begins with a comprehensive examination of the current state of evidence related to suicide risk and religious involvement among Black youth. The two studies that comprise the dissertation endeavor to elucidate the relation between religious involvement and suicide risk. Study 1 will examine the extent to which religious involvement influences the association between everyday experiences of general discrimination (i.e., discrimination not necessarily attributed a specific social identity) and five key suicide risk factors—suicidal

ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders—in a nationally representative sample of Black youth. This first study examines religious involvement as a protective factor and provides a context for understanding the association between religious involvement and suicide risk across a broad sample of African American and Caribbean Black youth. Importantly, this study takes into account the potential differences in the strength of these relations by gender and by ethnicity. Study 2 examines religious involvement as a promotive factor by assessing the longitudinal relation between religious involvement and two suicide risk factors, depressive symptoms and suicidal ideation, in a sample of Black youth who experience interpersonal problems. This study also takes into account potential differences in the strength of these relations by gender. Given that the latter study sample is drawn from a larger intervention study of youth who have interpersonal problems, the relations between religious involvement and suicide risk factors are examined within the context of interpersonal risk. Figures 1 and 2 provide conceptual maps of the relations that this dissertation will examine.

## Chapter II

Literature Review: Mental Health, Suicide Risk, and Religious Involvement Among

Adolescents

Utilizing the nomenclature and definitions for suicidal behaviors developed by Bridge, Goldstein, and Brent (2006), Silverman, Berman, Sanddal, O'Carroll, and Joiner Jr. (2007), and Crosby, Ortega, and Melanson (2011), in this dissertation "suicide" is defined as a self-inflicted act, conducted with an implicit or explicit intent to die from that act (Silverman, Berman, Sanddal, O'Carroll, & Joiner Jr., 2007; Bridge, Goldstein, & Brent, 2006). "Suicidal ideation" is defined as thinking about, considering, or planning to engage in suicide-related behavior (Crosby, Ortega, and Melanson 2011). A "suicide attempt" is defined as a self-directed, non-fatal act conducted with some intent to die that may not result in injury (Silverman et al., 2007; Bridge et al., 2006). "Suicide-related behavior," or "suicidal behavior" is an umbrella term that encompasses suicidal ideation and attempts (Silverman et al., 2007; Bridge et al., 2006). "Suicide risk" or "suicide risk factors" is an umbrella term that encompasses both "proximal risk factors," defined as circumstances that play a role in precipitating suicide-related behavior, and "distal risk factors," defined as underlying vulnerabilities, characteristics, contexts, or experiences associated with a higher likelihood of engaging in suicidal behaviors (Crosby et al., 2011). "Protective factors" are defined as factors that mitigate the effect of a risk-factor among individuals at risk (Crosby et al., 2011) by modifying the relation between the risk and the outcome (Zimmerman, et al., 2013). "Promotive factors" are defined as factors that counteract or

help individuals avoid the negative effects of risks they face through opposite, direct, and independent associations on outcomes (Fergus & Zimmerman, 2005; Zimmerman et al., 2013).

#### Suicide Risk Factors

Scholars who have examined suicide risk factors for youth have identified suicidal ideation, depression, anxiety, and behavioral disorders as well as substance use disorders as important risk factors for Black youth (Joe et al., 2016; Molock et al., 2006). In a recent study of majority Black (70%) urban residing youth who presented to a psychiatric emergency department, Joe and colleagues (2016) reported that 41% of these youth presented with comorbid psychotic disorders, 28.8% with mood disorders, 11.8% with behavioral disorders, and 8.7% with other psychiatric disorders. Additionally, youth with mood disorders were at 60% higher risk of suicidal behavior than those with behavioral disorders (Joe et al., 2016). Taken together these findings suggest that youth who experience psychological distress are at greater risk for suicide than those who do not report experiences of psychological distress; therefore, special attention to psychiatric disorders as factors that increase youth's risk of suicidal behaviors is warranted. This dissertation provides a review of the literature on common risk factors associated with suicide among youth: suicidal behavior, depression, anxiety, disruptive behavior disorders, and substance use disorders (Cash & Bridge, 2009). This review will provide context for the relations examined in the dissertation studies.

**Suicidal Behavior**. Researchers have suggested that in addition to the risks associated with having a *DSM-IV* psychiatric disorder (e.g., depression, anxiety, behavioral and substance use disorders), engaging in suicidal behaviors is also associated with increased risk of developing suicidal ideation (Joe et al., 2009). National reports assessing suicide and suicidal behavior among youth find that during the 12 months before the survey, 17.7% of students report having

seriously considered suicide, 14.6% report having made a suicide plan, and 8.6% report having attempted suicide (Kann, 2016). The same survey identified that 14.5% of Black students report having seriously considered suicide, 13.7% report having made a suicide plan, and 8.9% report having attempted suicide (Kann, 2016). Suicidal ideation and non-suicidal self-injury are strong risk factors for suicide attempts and death by suicide among youth (Brent et al., 1993; Horwitz, Czyz, & King, 2015; Lewinsohn, Rohde, & Seeley, 1994). An important consideration is that suicidal ideation rapidly increases after age 12 (Nock et al., 2013) and severity of suicidal ideation along with past suicide attempts and non-suicidal self-injury are stable predictors of suicide attempts among adolescents (Horwitz et al., 2015). Therefore, adolescence is an important life stage during which to examine this kind of ideation, as one-third (33.4%) of youth who report suicidal ideation proceed to developing a suicide plan, and another one-third of these youth (33.9%) act on this plan and attempt suicide (Nock et al., 2013).

Despite the increased risk for suicidal ideation during adolescence, few reports examine the recent prevalence of suicide attempts among Black youth (Joe, Baser, Neighbors, Caldwell, & Jackson, 2009). Using the only nationally representative household interview survey of African American and Caribbean Black youth, Joe and colleagues (2009) reported that overall, the 12-month prevalence rate of suicidal ideation was 3.2%, and the 12-month prevalence of attempts was 1.4%. Overall lifetime prevalence of attempts was 2.7% and the lifetime prevalence of suicidal ideation was 7.5%. Looking more specifically at differences by ethnicity, the authors report that African American youth were 4.55 times more likely than Caribbean Black youth to attempt suicide; however, there was no difference between African American and Caribbean Black youth with respect to their rates of suicidal ideation (Joe et al., 2009). Though few studies focus specifically on Black youth, and fewer studies differentiate Black youth by ethnic

background, Joe and colleagues' (2009) findings regarding the prevalence of suicidal behaviors among an ethnically diverse sample of Black youth helps provide a better sense of suicide risk within this population. Given that meeting criteria for psychiatric disorders is a risk factor for suicide ideation and attempts among adolescents, research on those disorders most highly associated with suicide risk among all adolescents will be reviewed, with a specific focus on research about disorders that reflect risk for Black youth where possible (Nock et al., 2013).

Depression. Almost 90% of youth who report suicidal ideation and approximately 96% who make an attempt meet criteria for at least one psychiatric disorder (Nock et al., 2013). Mood disorders contribute substantial risk to suicide (Bridge et al., 2006). In a case-control study conducted among adolescents, Brent and colleagues (1993) reported that the 80-90% of adolescents who engaged in suicidal behavior also suffered from significant psychopathology, and depression was the most significant indicator of suicide risk among these youth (Brent et al., 1993; Wilkinson, Kelvin, Roberts, Dubicka, & Goodyer, 2011). Similarly in a national sample of adolescents, the authors report that depression was the most prevalent lifetime disorder among suicidal adolescents (Nock et al., 2013).

Recent data from the 2015 National Survey on Drug Use and Health indicate that 12.5% of all youth, and 9% of Black youth, ages 12-17 years, experienced a major depressive episode during the past year (NSDUH, 2016; NIMH, 2016), yet previous studies report depression prevalence rates for all adolescents with little attention to difference by race or ethnicity. The few studies that report prevalence rates specific to Black youth provide a more contextualized view of depression among these adolescents. Using the DSM Scale for Depression (DSD), a self-administered questionnaire developed from the Diagnostic Interview Schedule for Children (DISC) major depression questions, Doi, Roberts, Takeuchi, and Suzuki (2001) examined

prevalence rates of major depression among adolescents in Texas. The authors report a 6.1% point prevalence of African American adolescents with major depression with impairment (having many problems at school, home, or with peers) and 13.4% without impairment. In a different study, Angold and colleagues (2002), utilizing the Child Adolescent Psychiatric Assessment (CAPA), an interviewer-administered structured questionnaire, found a 1.4% prevalence rate among rural African American youth in North Carolina. More recently, findings from Byck, Bolland, Dick, Ashbeck, and Mustanski (2013), based on data from the DISC, an interviewer-administered structured questionnaire, indicate that the prevalence of depression in a sample of low-income African American youth in Alabama was 3.8%, compared to a previous National Comorbidity Survey Replication Adolescent Supplement (NCS-A) report, where Kessler and colleagues (2012) identify a 12-month prevalence of 8.2% for all youth, as measured by the Composite International Diagnostic Interview (CIDI), an interviewer-administered structured questionnaire, using nation level data. Variations in these prevalence data may be reflective of several measurement differences, including point versus 12-month prevalence, selfreport versus interviewer assessment of depressive symptoms, and state versus national level data. Each of these factors likely impact reported rates of depression, yet still reflect an important mental health concern to be addressed.

In addition to epidemiological risk associated with depression among Black youth, studies have begun to explore contextual factors related to depression among Black adolescents. Eisman, Stoddard, Heinze, Caldwell, and Zimmerman (2015) examined the longitudinal effects of exposure to other forms of violence, including violence observed in the home, on depression among a majority Black adolescent sample. Additionally, the authors utilized a resilience framework to identify the role of social support. Eisman and colleagues (2015) reported that

exposure to violence was associated with increased depression over time, yet mother support was associated with lower depression over time, even when youth were exposed to violence. The authors provide evidence for a compensatory model of resilience in which mother support positively influences adolescents' risk of depression even in the context of community and family violence exposure (Eisman et al., 2015). Depression prevalence rates that are specific to Black youth provide a better epidemiologic view of the problem for these adolescents and studies like that of Eisman and colleagues (2015) provide context for such findings, as well as suggestions of ways to buffer the related negative effects of depression. Though prevalence rates vary by income level and region among Black youth, it is clear that depression is a psychiatric disorder of concern for Black youth. Given the link between depression and suicidal behavior, coupled with the increased rates of suicide among Black youth, it is important to examine this relation in a study of suicide risk among Black adolescents, as well as factors that can buffer against the related poor mental health outcomes. Other psychiatric disorders, such as anxiety, have similar associations with suicide risk for Black youth, yet have not been studied as extensively as depression.

Anxiety. Nation level data from the National Comorbidity Survey Replication

Adolescent Supplement (NCS-A) show a 12-month anxiety disorder prevalence of 24.9% for all youth, as measured by the Composite International Diagnostic Interview (CIDI) (Kessler et al., 2012). Researchers hypothesize that anxiety, which often co-occurs with depression, may be related to suicidal behavior as a result of distorted cognitions experienced during anxious states (Spirito & Esposito-Smythers, 2006). In conjunction with a lower threshold for perceived threat, and a decreased competency for managing perceived threat, these youth may consider suicidal behavior as a means of escape (Spirito & Esposito-Smythers, 2006). A study of a national

sample of adolescents found that an anxiety related disorder (specific phobia) was the second most prevalent lifetime disorder among suicidal adolescents (Nock et al., 2013). Adolescents who attempt suicide or experience suicidal ideation have been found to be more anxious than those who do not attempt suicide (Gallagher, Prinstein, Simon, & Spirito, 2014; Spirito & Esposito-Smythers, 2006). Several studies of psychiatric inpatients found that youth who attempted suicide or experienced suicidal ideation reported higher anxiety than both non-suicidal inpatients (Gallagher et al., 2014; Kelley et al., 1996; Ohring et al., 1996) and community controls (Stein, Apter, Ratzoni, Har-Even, & Avidan, 1998). Among community samples of youth, researchers have also found that anxiety disorders increase the risk of suicide attempt (Gould et al., 1998). More recent studies also report that based on adolescents' who self-reported severe anxiety symptoms and those who self-reported minimal to moderate, or subthreshold, anxiety symptoms were at increased risk for suicide (Balázs et al., 2013). Despite the proven link between anxiety and suicide-related behaviors among adolescents, research on this association has been scarce (Hill, Castellanos, & Pettit, 2011).

In a study of mostly Black youth, Pilowsky, Wu, and Anthony (1999) found that 13- and 14-year-olds who had a history of panic attacks were twice as likely to have made a suicide attempt, as compared to their counterparts without a history of panic attacks. In the first national study of African American and Caribbean Black youth, Joe and colleagues (2009) report that meeting criteria for a psychiatric disorder, especially an anxiety disorder, was strongly associated with suicidal ideation and attempts. Black adolescents who developed an anxiety disorder were approximately three times more likely to attempt suicide and to experience suicidal ideation than those who had not developed an anxiety disorder (Joe et al., 2009). Despite limited studies of risk factors for Black youth (Neal-Barnett, Crosby, & Salley, 2010), the nationally representative

study by Joe and colleagues (2009) provides valuable information about risk factors that may be particularly important to monitor with regard to Black adolescents' suicide risk.

**Impulse-control Disorders.** Impulse-control disorders, as reported in the National Comorbidity Survey Replication Adolescent Supplement (NCS-A), have a 12-month prevalence of 16.3% for all youth, as measured by the Composite International Diagnostic Interview (CIDI) (Kessler et al., 2012). Especially among boys, disruptive behavior, or disruptive behavioral, disorders have been identified as significant risk factors for suicide (Gould et al., 2003). Disruptive or aggressive behavioral disorders, such as attention-deficit hyperactivity disorder, conduct disorder, and oppositional defiant disorder, were found to be independently and prospectively associated with suicidal ideation and suicide attempts (Gould et al., 1998; Kerr, Reinke, & Eddy, 2013; Vander Stoep et al., 2011). In addition to identifying direct associations between disruptive disorders and suicide-related behaviors, researchers have found that disruptive disorders increase the risk of substance abuse, which is associated with suicide attempts (Gould et al., 1998; Kerr et al., 2013; Vander Stoep et al., 2011). Furthermore, disruptive disorders are often comorbid with mood, anxiety, or substances abuse disorders (Kessler et al., 2006; Gould et al., 2003) and predict elevated odds of suicidal behavior among youth (Nock et al., 2013). These findings suggest many potential pathways for mediated and moderated association, and support the importance of continued examination of behavioral disorders in relation to suicide risk among adolescents.

**Substance Use Disorders**. Nation level data from the National Comorbidity Survey Replication Adolescent Supplement (NCS-A) show a 12-month substance use disorder prevalence of 8.3% for all youth, as measured by the Composite International Diagnostic Interview (CIDI) (Kessler et al., 2012). Assessments of the global burden of disease estimate that

as many as 80% of deaths are attributable to mental and substance use disorders (Whiteford et al., 2013). Substance use has been documented as one of the most prevalent disorders among youth who engage in suicidal behaviors (Nock et al., 2013). According to psychological autopsy studies, the majority of youth who died by suicide suffered from significant psychiatric problems, including substance abuse (Gould et al., 2003; Gould et al., 1998; Gould & Kramer, 2001). Additionally, substance use was also found to consistently co-occur with mood disorders and behavioral disorders (Gould & Kramer, 2001). Reports also show that substance abuse is often more strongly associated with suicide attempts than with suicidal ideation (Bridge et al, 2006; Gould et al., 1998). Substance abuse/dependence has been found to be an independent risk factor for suicide attempts and may lead to escalation from suicidal ideation to attempts (Bossarte & Swahn, 2011; Gould et al., 1998). Specifically among Black youth, adolescents who developed a substance use disorder were over three times more likely to experience suicidal ideation than those who had not developed a substance use disorder (Joe et al., 2009); therefore examining the influence of substance use disorders in the lives of Black youth is important.

Relational Risk Factors. Of additional importance, is that meeting criteria for the aforementioned diagnoses or experiencing psychiatric symptoms are likely not the only suicide risk factors among Black youth. Joe and colleagues (2009) report that by the time of their attempt, approximately half of the Black youth did not have or had not been diagnosed with a DSM-IV disorder (Joe et al., 2009). These findings suggest the necessity of examining factors beyond psychiatric disorders and symptoms that may predict suicide risk among Black youth. For example, it is important to consider contextual and environmental factors, such as discrimination and interpersonal problems, that may also exacerbate suicide risk for Black youth.

A growing number of studies examine discrimination experiences of Black youth in the

United States, with a specific focus on the consequences of discrimination exposure for these youths' mental health. One study indicated that 90% of Caribbean Black youth had experienced racial discrimination in the past year (Seaton et al., 2008). Findings from this study suggested that when African American and Caribbean Black youth experience high levels of discrimination, they also report high levels of depressive symptoms (Seaton et al., 2008). Of note, Caribbean Black youth who experienced high levels of discrimination reported lower levels of self-esteem than their African American counterparts (Seaton, Caldwell, Sellers, & Jackson, 2008). These finding suggest that while African American and Caribbean Black youth may share similar experiences (e.g., discrimination), these experiences may be associated with varying levels of severity with regard to mental health outcomes. Further, there is evidence to suggest variation by ethnicity and gender. In an examination of African American and Caribbean Black youths' psychological well-being, Seaton, Caldwell, Sellers, and Jackson (2010a) identified that Caribbean Black girls who reported discrimination experiences also reported higher levels of depressive symptoms, and lower levels of life satisfaction than their male and African American counterparts.

Additionally, evidence suggests that low social connectedness and victimization among Black youth are also associated with suicide risk factors for Black boys and girls (Carbone-Lopez, Esbensen, & Brick, 2010; Taylor, Sullivan, and Kliewer, 2013). However, limited studies specifically examine experiences of low social connectedness and victimization among large, diverse samples of Black youth. One study identified that among a large sample of low income Black youth, those who were victims of bullying were also more likely to report depressive symptoms and suicidal ideation (Fitzpatrick et al., 2008). Similarly, Fitzpatrick and colleagues (2010) later identified that youth who reported involvement in bully victimization, bully

perpetration, or both bully victimization and perpetration also reported higher depressive symptoms than their counterparts who did not report experience with these interpersonal problems. Victimization has also been associated with outcomes such as depressive symptoms and loneliness in groups of African American youth (Storch et al., 2003). Further study is required to identify differences by ethnicity.

This dissertation will enhance our current understanding of suicide risk among Black youth by including these important relational risk factors. At the same time, it is arguably more important to identify factors that are protective for Black youth against suicide risk.

#### **Suicide Protective Factors**

Religiosity and spirituality are factors that have been associated with positive mental health outcomes for Black youth. This dissertation will provide a review of the extensive research on adolescent religious and spiritual development and the ways in which these factors are protective for adolescent mental health.

### Adolescent religious and spiritual development

Research on religion in the lives of adolescents is extensive (Boyatzis, 2012; Donelson, 1999; P. E. King & Boyatzis, 2015; M. Regnerus, Smith, & Fritsch, 2003; Smith, Faris, Denton, & Regnerus, 2003; Wagener, Furrow, King, Leffert, & Benson, 2003). Religious involvement has been linked to positive youth development (Ebstyne King & Furrow, 2008; Gibson, 2008; James & Fine, 2015; Youniss, McLellan, & Yates, 1999). Ebstyne King and Furrow (2008) examined religiousness among youth ages 13-19 years old. The authors studied the importance of religion or spirituality, frequency of participation in religious activities, and the importance of participating in these religious activities (Ebstyne King & Furrow, 2008). Youths' religiosity was associated with such moral behaviors as altruism and empathy; however, this relation was

mediated through social capital resources, specifically, social interaction; trusting relationships; and shared values, beliefs, and goals (Ebstyne King & Furrow, 2008). The authors suggest that religious importance and participation increase youths' interactions with trusted individuals who provide support and nurture their moral development. Similarly, Gibson (2008) reported that frequent church attendance and theological conservatism significantly increased the likelihood that American teens, ages 13-17, would volunteer in their communities. James and Fine (2015) also report that among youth ages 10-18 years old, those with coherent conceptions of their spirituality, and who considered themselves more spiritual, scored higher on measures of positive youth development (specifically, competence, confidence, character, connection, caring and compassion, and contribution to self, family, and community) than youth who had more ambiguous conceptualization of their spirituality (James & Fine, 2015). Though researchers are still working to understand the mechanisms that underlie the religiosity-positive mental health relation for youth, these findings provide evidence that religiousness and spirituality do positively impact youths' positive development, especially related to community involvement. These studies provide detailed and critical information about ways that religious involvement positively influences youth community engagement. Of equal importance, and a gap that requires additional study, is the potentially positive role of religious involvement in adolescents' personal development and mental health.

Though much of the extant literature is not specific to Black youth, the Black church holds a historic position as a stronghold of the Black community (Billingsley & Caldwell, 1991; Mattis, 2001; Mattis & Mattis, 2011). The same may be true of the association between church attendance and volunteerism and political activism among Black youth, however, empirical research is necessary to confirm these speculations. Religious and spiritual Black youth may

view religion as a means to challenge and cope with the stresses created by societal and secular institutions (Mattis, 2001); therefore, Black youth may learn to utilize faith and reliance on a higher authority to withstand injustices and mistreatment, such as discrimination and bullying, in their everyday lives, especially in cases where they feel relatively powerless. Further, if youth gain understanding about *how* to live their lives through their belief in an ultimately just High Power that privileges forgiveness, then endorsement of religious or spiritual beliefs may attenuate mental health risk, specifically suicide risk, among these youth. There is little research examining the role of religiosity as protective against suicide risk among Black youth, therefore this dissertation seeks to fill this gap in the extant literature.

In addition to positive youth development, religious involvement has been associated with less engagement in risky behaviors. Wallace and colleagues (2007a) examined relations between religiosity and substance use (tobacco, alcohol, and marijuana), in a large nationally representative sample of adolescents. Adolescent religiosity was measured by individual self-rated frequency of service attendance and importance, as well as adolescents' community level (i.e. school) aggregates of the same measures (Wallace et al., 2007a). The authors report that both individual religiosity and community religiosity were negatively associated with cigarette use, binge drinking, and marijuana use (Wallace et al., 2007a). In their review of the role of religion and spirituality in positive development of youth, Kub and Solari-Twadell (2013) note that evidence supports an inverse relation between religiosity and spirituality and youths' substance use. Overall, findings suggest that in addition to its positive association with youths' positive development, religious involvement is also associated with less engagement with risky behaviors among youth. Researchers have identified links between religious involvement and myriad aspects of Black youths' development, however there is limited evidence specifically

related to suicide risk among Black youth. This dissertation intends to advance the current knowledge base by filling this gap.

Religiosity and spirituality have also been consistently positively linked to health, mental health, and well-being (Benson, 2004; Benson, Roehlkepartain, & Rude, 2003; Desrosiers & Miller, 2007; M. Regnerus et al., 2003; M. D. Regnerus, 2003; Rew & Wong, 2006; Wong, Rew, & Slaikeu, 2006). This has been demonstrated both for high- and low-risk youth (M. D. Regnerus & Elder, 2003). Desrosiers and Miller (2007) reported that daily spiritual experiences, forgiveness, and religious coping were associated with less depressive symptomatology in girls, ages 11-23 years old. A systematic review by Rew and Wong (2006) examined 43 studies that assessed relations between adolescents' religiosity, spirituality, health attitudes, and health behaviors. The authors report that the majority of studies (84%) between the 1998 and 2003 found positive effects on the relations between religiosity and spiritualty and health attitudes and behaviors among youth. Included in this review were outcomes such as suicidal ideation and behavior, confirming the positive effects of religion and spiritualty on suicide risk for adolescents. In a similar systematic review, Wong, Rew, and Slaikeu (2006) examined the effects of religion and spirituality on adolescents' mental health outcomes. In this review of 20 studies published between 1998 and 2004, the authors report that the majority of studies (90%) found positive associations between religion and spirituality and mental health among adolescents. Previously conducted reviews report similar findings (Benson et al., 2003; M. Regnerus et al., 2003; M. D. Regnerus, 2003). The current evidence regarding the positive role of religiosity and spirituality in the lives of youth is extensive. In addition to these regarding mental health outcomes, studies have also examined religious involvement in relation to youths' psychological development and behavioral outcomes.

A recent study examined the influence of religion on psychological development and social adjustment during early childhood. Batkowski, Xu, and Levin (2008) reported that parent and family religious attendance positively affects children's prosocial behavior, as assessed by parents and teachers. Scholars have also examined these relations in maltreated youth. Kim (2008) reported that the importance of faith was associated with lower levels of internalizing symptoms among maltreated girls, and religious service attendance was associated with lower levels of externalizing symptoms among low-income, non-maltreated boys. Dew and colleagues (2010) also report that religiousness and spirituality are cross-sectionally related to depressive symptoms among psychiatrically hospitalized adolescents, and that loss of faith over a six-month period predicted less improvement in these adolescents' depression scores. As demonstrated here, recent scholarship continues to expand research on adolescent religious life to include a range of outcomes, developmental stages, and populations of youth. Researchers have also begun to conduct specific examinations of Black youth.

Specifically, previous studies have examined relations between religious involvement and health-related behaviors among Black youth. McCree, Wingood, DiClemente, Davies, and Harrington (2003) examined the association between African American adolescent females' religiosity (as measured by frequency of engaging in religious/spiritual activities) and risky sexual behaviors. The authors reported that adolescents with higher religiosity scores were more likely to engage in STD/HIV preventive behaviors (McCree et al., 2003). These results are consistent with similar research among a representative sample of adolescent girls that found religiousness (specifically, personal devotion, frequent attendance of religious events, and personal conservatism) was positively associated with more sexual responsibility (Miller & Gur, 2002). Wallace and colleagues (2007b) also examine the relation between adolescent religiosity

and substance use (alcohol, tobacco, and marijuana), specifically among Black youth. Adolescent religiosity was measured by religious importance, frequency of religious service attendance, and denominational affiliation (Wallace et al., 2007b). Wallace and colleagues (2007b) report that religiosity was inversely related to alcohol, tobacco, and marijuana use among Black youth. These findings, specific to Black youth, help identify the positive and important role of religious involvement in the lives of Black youth regarding risky and health related behaviors.

In addition to the previous focus on physical health and behaviors, studies have also examined the association between religious involvement and mental health outcomes among Black youth. Grant and colleagues (2000) examined the role of community-based religious involvement as a protective factor against psychological symptoms among low-income Black youth who report stressful life experiences. Psychological symptoms measured included internalizing symptoms (specifically, symptoms of depression, anxiety, and social withdrawal) and externalizing symptoms (specifically, symptoms related to acting out such as yelling or aggressive behavior) (Grant et al., 2000). The measure of religious involvement assessed included the degree to which adolescents: embraced religious beliefs, were involved in relationships with others who attended services, participated in activities beyond worship, and the length of time youth had attended their current religious institution (Grant et al., 2000). The authors reported that for Black girls, religious involvement effectively attenuated the relation between stress and internalizing symptoms (Grant et al., 2000). A more recent study of religious involvement and mental health among Black youth reported similar findings. Ball, Armistead, and Austin (2003) examine the relations between overall religiosity (as measured by adolescent religiosity, adolescent church attendance, and the adolescent's family's religiosity) and

psychological distress among urban African American female teens. The authors surveyed almost 500 urban African American female teens, ages 12-19 years old, and reported a positive association between overall religiosity and increased functioning. Greater religiosity among urban African American female teens was significantly associated with better psychological functioning (Ball, Armistead, & Austin, 2003). These studies are important for identifying the relations between religious involvement and mental health among Black youth. Still, there is little research on the relation between religion and spirituality as they relate to suicide risk among Black youth. This dissertation seeks to fill this gap by examining the role of religious involvement in the lives of Black youth. Specifically, this dissertation will examine (1) the buffering effects of religious involvement in the relation between discrimination and suicide risk as well as (2) the relation between religious involvement and suicide risk in a sample of youth at risk for suicide due to their experiences with interpersonal problems.

Religious Involvement and Relational Risk Factors among Black youth. In addition to the positive impact of religion and spiritualty on mental health among Black youth, research suggests that religiosity and spirituality have been employed as protective factors against race-related stressors, including discrimination and self-stigmatization, and as a promotive factor for psychosocial development among Black youth. Haight (1998) conducted an ethnographic study of an African American Baptist Church in Utah. The author reported that African American adults who identified as members of the Baptist denomination employed religious socialization practices within Sunday school classes. Church members expressed concern for their children given their majority White, majority Mormon community, and employed these socialization strategies to buffer against children's potentially negative experiences in a community where they might be exposed to hostility and discrimination (Haight, 1998). A related study among

African American adolescents found that African American adolescents who reported being likely to attend church by their own choice were more destigmatized (i.e. they did not internalize negative stereotypes associated with Black people) than those with a lower likelihood of attending church by their own choice (Brega & Coleman, 1999). Additionally, Markstrom (1999) reported that among African American youth, religious involvement, specifically, attendance at religious services, participation in a Bible Study group, and youth group involvement, was associated with the highest ethnic identity scores, compared to all other youth in the study. Further, as researchers strive to move toward a more critical and in depth analysis of adolescent religious and spiritual development, Mattis, Ahluwalia, Cowie, and Kirkland-Harris (2006) argue the importance of attending to the impact of political, economic, and social forces that affect specific racial, ethnic, and cultural groups. Taken together, these findings suggest that involvement in religious communities may play an important role in equipping Black youth with resources with which to protect against race-related stressors (Mattis & Mattis, 2011).

Age is another important consideration in examining the religious and spiritual development of youth (Kub and Solari-Twadell, 2103). Kub and Solari-Twadell (2103) raise concern for the developmental appropriateness of measuring religion and spiritualty among youth, as well as concerns regarding the measurement inconsistency of religiosity and spirituality, highlighting a tendency to conflate the two distinct concepts (Kub and Solari-Twadell, 2013). Therefore, the authors advocate for the consideration of adolescents' developmental stage in understanding and reporting the role of religion and spirituality in their lives, perhaps by grouping youth by age to address development-related maturational differences (Kub & Solari-Twadell, 2013). Likewise, age has been associated with variability in reports of suicidal ideation, as older adolescents tend to report more suicidal ideation than younger

adolescents (Joe et al., 2009). These and other considerations emphasize that though the present literature on adolescent religious and spiritual development is well developed, growth areas remain. For example, while research has begun to support the assertion that religious involvement can be protective against mental health risk for Black youth (Wallace et al., 2007b; Ball, Armistead, & Austin, 2003; Grant et al., 2000), there is limited research about the role of religious involvement as a protective factor for Black youth (Wallace & Forman, 1998; Wallace et al., 2007b), specifically against suicide risk.

**Religious Involvement among Black Adolescents.** Religious involvement is a protective factor among Black youth (Butler-Barnes et al., 2016; Rose, Finigan-Carr, & Joe, 2016; Wallace et al., 2007b; Rew & Wong, 2006). In previous work exploring the role of religion and spirituality in the lives of African Americans, and in the proposed studies, religion is defined as "a shared system of beliefs, mythology, and rituals, associated with god or gods" and by extension, religiosity, as "an individual's degree of adherence to the beliefs, doctrines, and practices of a religion" (Mattis & Jagers, 2001, p. 522). King and Boyatzis (2004) also discuss religion as a representation of youths' engagement with organized faith traditions, such as engagement in various practices, symbols, or gestures that represent these beleifs. Spirituality is defined as a belief in a non-tangible power that influences every aspect of life (Mattis & Jagers, 2001), and is often related to an individual's personal commitment and relationship with God or a higher power. Additionally, King and Boyatzis (2004) identify spirituality as private configurations of feelings and actions that occur in the context of individuals' relations with their faith; actions are led by an intrinsic capacity and belief that life is rooted beyond one's self. Religion has been conceptualized as one practical manifestation of spirituality (Mattis & Jagers, 2001). The organized practices that define religion are meant to facilitate closeness to that which

is beyond one's self that defines spirituality (King and Boyatzis, 2004). Though the forms differ, religion and spiritualty are important social institutions to explore with relation to Black adolescents' health outcomes. Further, although religiosity and spirituality are not synonymous, their points of overlap in the lived experience of people of faith is clear from extant definitions. As such, in this study I will use the world "religiosity" to refer to institutional practices of faith (e.g., service attendance); and will use the phrase "religiosity and spirituality" when referencing manifestations of religious commitment that reflect an integration of public or ritual expressions and private beliefs, convictions, and subjective experience of relationship with a divine force.

In a systematic review of 43 studies examining the associations between religiosity and spirituality and all youths' health attitudes and beliefs, the authors report that Black youth expressed higher levels of religion and spirituality than their White counterparts (Rew & Wong, 2006). Further, recent research identifies the positive influence of Black parents' religious socialization on their children's psychological well-being (Butler-Barnes, Martin, & Boyd, 2017). In a nationally representative study of youth, Pearce, Foster, and Hardie (2013) identified latent classes of religiosity among adolescents in the United States. The authors report that youth between the ages of 13 and 17 years fall into five classes of religiosity, and titled the five classes: Abiders, Adapters, Assenters, Avoiders, and Atheists; and found that African American youth were most likely to be Adapters (Pearce et al., 2013). The authors identified these classes based on various measures of cognitive, affective, and behavioral religiosity. As described by Pearce and colleagues (2013), Adapters as those who adapt their beliefs and practices to develop a less institutionally based and pluralistic—as opposed to the Abiders who report institutional and exclusivist—understandings of their religion. Adapters are variable in their religious service attendance, yet pray often, and are more likely to endorse being spiritual but not religious.

Therefore, examining various aspects of religion and spirituality among Black youth may provide a more accurate understanding of the role of religion and spirituality as protective factors for mental health concerns.

The studies discussed here, provide a sense of the work that has been conducted, to date, to explore how religion and spirituality have been measured and what is known about the role of religion and spirituality in the lives of Black youth. Given the paucity of research specifically examining the influence of religion and spirituality in the lives of Black youth in relation to suicide risk, this dissertation seeks to identify the role of these contextual factors in relation to suicide risk in this population. The goal of this research is to add to the extant literature on protective factors for youth who are exposed to relational risk such as discrimination and interpersonal problems.

# **Religion and Spirituality and Mental Health**

Religion and spirituality have been directly and indirectly linked to positive mental health outcomes; however, of important note is the variance that exists between measurement of religion and spiritualty in the literature. This may provide some insight into the seemingly contradictory results among some studies discussed here. Previous study of the role of religion on health outcomes have shown that religion can be protective against harmful physical and mental health outcomes, however, much of this work regarding suicide risk has been detailed among adults rather than adolescents (Wallace & Forman, 1998). In studies of Black adults and adolescents, religion's positive relation with health has been explained in the context of the social aspects of religion. These explanations assert that the value of being involved in religious communities comes as a result of the social support one receives from individuals within his religious community (Chatters, Taylor, Lincoln, Nguyen, & Joe, 2011). This may be especially

true for older Black adults who may have limited social support outside of their religious communities (Chatters et al., 2011). However, the fact that Black youth often have other social networks through family, school, and other peer involved activities through which they are socialized, calls to question the need for social support through religious communities, as religious institutions would not likely be the sole source of support. Therefore, additional studies of religion and spirituality among Black adolescents should explore not only the value of religious social support, but also the potential intrapersonal value of religion and spirituality for Black adolescents, especially for youth who experience interpersonal problems.

Religion, Spirituality, and Suicide Risk among Adolescents. Researchers have explored a range of dimensions of religious involvement such as religious affiliation (church attendance, meaningfulness, religious coping, and religious (church-based) support) as well as a range of dimensions of spiritualty (personal practices, internalized beliefs, and commitment to core beliefs) and identified their positive relations with physical and mental health and well-being among adolescents (Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006; Dew et al., 2010; Goldston et al., 2008; Walker & Bishop, 2005; Yonker, Schnabelrauch, & DeHaan, 2012). These studies have assessed adolescents' religion and spirituality in relation to depression and/or suicidal ideation and behavior, and provide evidence for religion and spirituality as protective factors. Of important note is the paucity of studies that have focused specifically on Black adolescents. The studies reviewed below provide evidence for all youth, making note of when studies were conducted with Black adolescents.

#### Religion as protective against suicide risk for adolescents

Studies have found public religiousness, to be strongly associated with less depression and suicide attempts among youth. In a study of 454 college students, public religiousness (e.g.,

attending religious services) and private religiousness (e.g., praying) were summed to represent total religiousness, and were not correlated with suicidal ideation and attempts (A. Robins & Fiske, 2009). However, when assessed separately, private religiousness was still not associated with suicidal ideation and attempts, but public religiousness was related to lower levels of suicidal ideation and attempts (A. Robins & Fiske, 2009). This finding raises questions about the relation between types of religious involvement and suicidal ideation, as it is in direct conflict with studies that found private, but not public religiousness protective against suicide (Nonnemaker, McNeely, & Blum, 2003). The authors hypothesize that the strong relation between public religiousness and suicidal ideation and attempts is primarily a result of the social support provided through religious communities (A. Robins & Fiske, 2009). This hypothesis suggests that the act of engaging in or attending religious events is not the most important factor associated with the reduced risk of suicide-related behaviors. It rather suggests that some positive influence is drawn from the relationships developed from public religiousness. The implicit assumption that youth are engaging in relationship building through these public displays of religiousness is in fact an empirical question, and highlights the need to independently examine the role of religious support.

# Spirituality as protective against suicide risk for adolescents

Some studies have found youths' private religiousness, or other displays of personal commitment, to be strongly associated with less depression and suicidal ideation and behavior. One study explored the role of both public religiosity and private religiosity in the lives of youth (Nonnemaker et al., 2003). Public religiosity was operationally defined as frequency of attending religious services and frequency of participating in religious activities, and private religiosity was measured as frequency of prayer and importance of religion (Nonnemaker et al., 2003). In

this study that sampled adolescents, public and private religiosity were related to lower levels of emotional distress; however, only private religiosity was related to a lower probability of experiencing suicidal ideation and attempts (Nonnemaker et al., 2003). These findings highlight the value of the subtleties within the broad scope of religious involvement and the specific value of intrapersonal aspects of religion, such as prayer and subjective importance of religion.

Examined in a sample of adolescent psychiatric outpatients, the role of religious and spiritual characteristics was examined in relation to depressive symptoms (Dew et al., 2010). Among these youth, daily spiritual experiences, forgiveness, positive religious coping, positive religious support, organizational religiousness, and self-ranking of being religious or spiritual was associated with less depressive symptoms (Dew et al., 2010). However, when explored longitudinally over six months, those youth who had a loss of faith showed less improvement in their depression scores (Dew et al., 2010). These findings build support for the importance of religion, but especially spiritualty, in the lives of youth experiencing challenging life circumstances, such as psychiatric hospitalization and major depression.

Similarly, researchers have identified that youths' internal beliefs are related to lower risk of depression and suicidal ideation (Greening & Stoppelbein, 2002; Walker & Bishop, 2005). Among predominantly African American college aged adolescents, a study of intrinsic religiosity, or internalized beliefs, and extrinsic religiosity, defined as the social benefits and external consequences of engaging in religious acts, found that the latter was not directly associated with depressive symptoms (Walker & Bishop, 2005). However, the use of a path model revealed that intrinsic religiosity was associated with less depression, and therefore less suicidal thoughts (Walker & Bishop, 2005). Interestingly, in a slightly younger population of 1,098 high school students that explored intrinsic religiosity, extrinsic religiosity, and orthodoxy,

the latter of which was defined as a commitment to core beliefs, neither intrinsic or extrinsic religiosity were associated with suicide risk (Greening & Stoppelbein, 2002). However, a concept related to private religious practices—orthodoxy, or the extent to which youth accepted traditional religious beliefs or doctrines, moderated the impact of depressive symptoms on suicide, such that higher levels of orthodoxy buffered the association between depression and suicide (Greening & Stoppelbein, 2002). Given that these youth report depressive symptoms in combination with a commitment to religious teachings, it is possible that this finding is a reflection of particular beliefs within certain religious traditions that suicide is a sin. Qualitative research could provide insight to contextualize this conjecture, however this particular investigation is beyond the scope of the current studies.

Still more studies build the case for private religious practices as protective. Defined as frequency of religious acts performed outside a religious institution, private religious practices were compared to organized religious practices, or involvement in church activities in a study of 160 youth, ages 11 and 12 (Davis & Epkins, 2008). This study found that while neither organized religious practices nor private religious practices were directly associated with depressive symptoms, private religious practices were indirectly inversely related to depressive symptoms (Davis & Epkins, 2008). Youth who reported having high private religious practices also experienced a weakened relation between family conflict and depression (Davis & Epkins, 2008). Therefore private religious practices were found to moderate the relation between family conflict and depression (Davis & Epkins, 2008).

Recently Rose and colleagues (2014) widened the scope of previous examinations by exploring the role of religious commitment on psychosocial well-being within a diverse, national sample of Black youth. Examining the role of religion and spiritualty in a national representative

probability sample of 1,170 African American and Caribbean Black youth, Rose and colleagues (2014) found that the relation between religious involvement (e.g. attending religious services) and psychosocial well-being was mediated by youths' religious commitment. These findings suggest that among Black youth, the positive psychosocial benefits of being engaged in religious activities are only experienced when youth are personally committed or connected to their religious beliefs. Altogether, these findings provide evidence for the protective role of spirituality against poor mental health outcomes among Black youth.

#### Additional factors related to religion and spirituality as protective for adolescents

Engaging in both public and private religious practices may have salubrious effects on mental health; however, evidence about the relative importance of these factors is somewhat mixed. The above studies provide support for factors that have been categorized as religion—such as frequency of church attendance and engagement in church related activities—and spirituality—such as intrinsic religiosity and meaningfulness of one's religion—and identified associations between these factors and better mental health of youth (Cotton et al., 2006; P. C. Hill & Pargament, 2008; Sanders et al., 2015; Walker & Bishop, 2005; Wright, Frost, & Wisecarver, 1993). However other studies have either found mixed evidence regarding the importance of religion versus spirituality, or identified the importance of other factors related to religion, such as religious or church-based support, to be protective against poor mental health among adolescents.

Among a nationally representative sample of youth ages 6-19, youth who reported attending religious services weekly or more frequently also reported having better psychological health (determined by whether or not the youth's last hospitalization or doctor appointment was mental health related or if s/he had a previous mental health diagnosis) than those who never or

seldom attended religious services (Chiswick & Mirtcheva, 2013). Youth who reported that religion was important to them (considered a measure of spirituality) also had better psychological health than those who did not consider religion to be important to them, and this effect was strongest for youth ages 16-19 (Chiswick & Mirtcheva, 2013). Interestingly, among youth ages 6-11 years old, the opposite was true—those who reported that religion was important to them had worse psychological health than their peers of the same age who did not consider religion to be important to them (Chiswick & Mirtcheva, 2013). These findings underscore the heterogeneity among youth who frequently attend religious services; for some, identifying religion as an important part of their lives was associated with better psychological health, however for others, identifying religion as an important part of their lives was associated with worse psychological health. Findings may reflect a distinct difference in age, level of endorsement, and meaning of religion among youth. This contradiction highlights the importance of studying Black youth as a heterogeneous group who have varying experiences and for whom religion and other protective factors may be differentially protective.

In a study of 744 adolescents in the 7-9<sup>th</sup> grades, neither religion nor spiritualty had significant effects on depression; however, both positive and negative religious support, also defined as interpersonal experiences, had effects on youths' depressive symptoms (Pearce, Little, & Perez, 2003). Having positive support from their religious congregations was associated with lower depressive symptoms for these youth. Conversely, having a negative relationship dynamic with their congregation was associated with greater depressive symptoms among these youth (Pearce et al., 2003). Similar to an assertion made in at least one previously discussed study (A. Robins & Fiske, 2009), these authors suggest that the most effective mechanism that makes religion protective against depression and suicide for youth is the support provided by religious

communities. The authors make the distinction between religion and religious support and suggest that neither youths' private nor their organizational engagement in religious institutions has as much impact on their mental health as the engagement of community within those religious institutions. This study provides an alternative view than the previously reviewed studies, which focus on either public or private religiosity. However, it is still unclear which of these factors is most effective, whether they have additive value, or interacting positive effects in preventing poor mental health among youth, especially Black youth.

# Current Evidence on religion and spirituality as protective factors among Black youth

The existing studies provide valuable information about adolescent mental health and, more specifically, the role religious involvement can play in the lives of youth experiencing a range of mental health concerns such as depression and suicidal ideation. However, the evidence is limited as far as the role of religious involvement as protective factors against suicide risk among Black youth and youth experiencing societal and interpersonal stressors, such as bullying (perpetration, victimization) or low social connectedness and discrimination. Additionally, there are limitations that impact the generalizability and conclusiveness of these study findings.

Few of the previously discussed studies that examine suicide risk included a majority (50% or more) of Black youth in the sample. This highlights the need for further study of the influence of religious involvement on suicide risk, specifically among Black youth, especially given previous work on the importance of religion within many Black families (Taylor & Chatters, 2010; Hill, 1998) as well as the positive influence of religious involvement on mental health established above.

Many of the previous studies discussed above explore direct associations between religious involvement and indices of adolescent mental health, including suicide risk factors,

citing a negative association between them. The studies that go beyond this association add to the literature by exploring the protective role of private religious practices on the relation between family conflict and depression (Davis & Epkins, 2008); the protective role of orthodoxy on the relation between religiousness (a combined measure of organizational religiousness and private religious practices) and suicidal behavior (Robins & Fiske, 2009); and the protective role of orthodoxy on the relation between depression and suicide risk (Greening & Stoppelbein, 2002). Importantly, in a sample of 212 Black adolescents, religious coping was identified as a risk factor for feeling hopeless and depressed; youth who reported these outcomes were more likely to have made a suicide attempt (Molock et al., 2006). These youth were also less likely to attend church regularly, and were less active in church. However, *collaborative* religious coping was identified as a protective factor for Black youth (Molock et al., 2006). These findings suggest that youth who only engage in religious involvement, yet remain socially isolated may still be at increased suicide risk. Findings further emphasize the need for continued study of diverse samples of Black adolescents, especially those who face relational risk. Another study among a sample of 1,526 Black youth, reports that being a member of a spiritual community was a significant protective factor for youth who reported suicidal ideation (Fitzpatrick, Piko, & Miller, 2008). This study provides initial insight into the factors of religious involvement that may be protective; however, there is a need for more information about this, especially in the context of relational risk youth may face in their everyday lives.

Many studies examining suicide risk among adolescents are reflective of only one timepoint. This precludes the opportunity to identify how religion impacts the lives of youth over time. This has particular significance for adolescents, as adolescence represents a period of transition, exploration, and increased opportunity for decision-making for many youth; the combination of these with societal and interpersonal pressures can results in stress for youth (Eccles et al., 1993). For a more complete picture, studies should explore the protective role of religion in the lives of youth over an extended period of time during adolescence.

As identified in previous studies (Chiswick & Mirtcheva, 2013), religion may have an increased or decreased influence in youths' lives as they move through adolescence and make decisions about their identities (Taylor & Chatters, 2010). As a result of this transition, adolescents may begin to think differently about what they find important and their reasons for living may change. Furthermore, as youth engage in more experiences with a wider range of individuals and an increased sense of independence that often comes with adolescence, youth may come into more concrete understandings of who they are in relation to their social position in society, which could also lead to changing levels of engagement with their religious and spiritual beliefs, and with their mental health. Therefore, it is important to examine the impact of religious involvement in the lives of youth over time to obtain a fuller picture of the overall protective influence, amidst other life events and stressors.

Exploring these and similar questions with a larger, more diverse sample of Black adolescents would improve the ability to identify patterns of similarities and differences across demographic groups such as race, gender, and ethnicity. Many studies suggest that there are differences in the ways that individuals experience religious involvement. These differences should be accounted for by inclusion of a wide range of individuals to capture a more detailed picture of Black adolescents' experiences.

Current studies examining religion and spirituality among Caribbean Black youth

There exists a limited body of literature specifically examining the experiences of Caribbean Black youth who reside in the United States. Importantly, however, there exists a

body of work that indicates that there are meaningful similarities and differences in patterns of religious involvement among Caribbean American and African American adults. Taylor and Chatters (2010) found, for example, that African American and Caribbean American adults were similar in the extent to which they rated religion and spirituality to be important in their lives. However, differences do exist. Other studies have found that African American adults are more likely to be members of religious institutions and more likely to be engaged in institutionally related activities including belonging to church choirs and clubs. In contrast to these more public manifestations of religious commitment, Caribbean Americans are more likely to report reading religious materials as an important part of their faith experience (Chatters, Taylor, Bullard, & Jackson, 2009).

Importantly, recent studies have begun to explicate the varied experiences of individuals from different ethnic backgrounds, examining the role of religious involvement on the harmful relation between discrimination and mental health outcomes for Caribbean Black youth. Butler-Barnes and colleagues (2016) identified that Caribbean Black youth who experienced high levels of discrimination and reported low levels of religious involvement, also reported high levels of depressive symptoms and stress. However, Hope and colleagues (2017) found disparate results, indicating no differences by gender or ethnicity in associations between religious support and psychiatric health outcomes among Caribbean Black boys and girls, compared to their African American counterparts (Hope, Assari, Cole-Lewis, & Caldwell, 2017). Studies that have examined these associations are limited in number and provide mixed results. The studies cited above begin the work of identifying the potential protective role of religious involvement in the associations between discrimination and mental health among Caribbean Black youth. However, the dearth of research on these topics and the uneven findings regarding the link between

religiosity and psychiatric outcomes across lines of gender and ethnicity suggest the need to expand the current literature on these associations by conducting more in-depth examinations of religious involvement as a protective factor for mental health for both Black Caribbean and African American youth. In the consideration of risk and protective factors, it is also important to identify how these factors differ by gender.

## Gender differences in risk and protective factors

Gender Differences in Suicide Risk. Suicide risk differs by gender (Lowry, Crosby, Brener, & Kann, 2014). Joe, Baser, Neighbors, Caldwell, and Jackson (2009) identified difference by gender, such that among females, 12-month prevalence of suicide attempts was 2.1% and for males, prevalence was 0.8%, a marginal statistically significant difference. Additionally, the prevalence of lifetime suicidal ideation (9.4%) and attempts (3.9%) among females was significantly higher than suicidal ideation (5.6%) and attempts (1.5%) among males (Joe et al., 2009). A report by the Suicide Prevention Resource Center (2013) also identified gender differences among Black youth, such that 17.4% of females, as compared to 9% of males reported having had suicidal ideation in the past 12 months. More females (13.9%) than males (8.4%) reported having made suicide plans in the past 12 months, and more females (8.8%) than males (7.7%) attempted suicide in the past 12 months. Joe and colleagues (2016) recently found that males were 30% less likely to present to an psychiatric emergency department with suicidality than females and females had a higher likelihood of having a history of suicidal behaviors in this setting (Joe et al., 2016). As evidenced here, girls have higher rates of suicidal behaviors, however, boys have higher rates of suicide death (Cash & Bridge, 2009). The differences in suicide ideation versus suicide death rates by gender may be due to the lethality of the means used in suicide attempts for boys (e.g. firearms) and girls (e.g. overdose) (Nock et al.,

2013). This trend is highlighted in the 2015 Centers for Disease Control and Prevention's Youth Behavior Risk Surveillance System, which identified that more Black females (18.7%) seriously considered suicide than Black males (11%); more Black females (17.3%) made a suicide plan than Black males (10.6%); more Black females (10.2%) attempted suicide than Black males (7.2%); however more Black males (4.0%) than Black females (3.6%) required treatment from a doctor or nurse due to their suicide attempt (Kann, 2016).

Related findings by Lewinsohn, Rohde, Seeley, and Baldwin (2001) indicate that suicidal ideation was predictive of suicide attempts for girls, but not boys. In a sample of 1,526 Black youth, females were more likely to report suicidal ideation than males (Fitzpatrick et al., 2008). In a nationally representative sample of Black youth, Joe and colleagues (2009) project that by the time they are 17 years old, more than 7% of Black American females will have attempted suicide (Joe et al., 2009). Black females also report higher rates of 12-month prevalence rates of suicidal ideation and suicide attempts than Black males (SPRC, 2013; Joe et al., 2009). Again, these trends were reflected in the lifetime prevalence of suicidal ideation and suicide attempts among females when compared to their male counterparts (SPRC, 2013; Joe et al., 2009). Despite the Black females' higher rates of suicide ideation and attempts, consistent with the general population, Black males have higher rates of suicide than females. The CDC reports indicate that suicide is the 3<sup>rd</sup> leading cause of death among Black males ages 10-24 years, and the 5<sup>th</sup> leading cause of death among Black females in the same age range (CDC, 2014; CDC, 2010). Given the disparities between suicide rates of Black males and females, it is important to examine gender differences to identify how relational risk and protective factors may also differentially influence these youths' suicide risk.

Previous work also suggests variance in psychiatric disorders by gender. According to data from the National Comorbidity Survey Replication Adolescent Sample, girls have significantly higher prevalence of mood and anxiety disorders than boys (Kessler et al., 2012). Alternatively, in the same nation level sample, boys have a significantly higher prevalence of behavior and substance use disorders than girls (Kessler et al., 2012). Research studies specifically examining psychological distress among Black youth also suggest that psychological distress varies by gender. In a sample of 1,526 Black youth, females were more likely to experience depressive symptoms than males (Fitzpatrick, Dulin, & Piko, 2010). Additionally, Assari, Smith, Caldwell, and Zimmerman (2015) report that an increase in neighborhood violence was associated with an increase in depressive symptoms among urban African American males, but not females. Liu, Bolland, Dick, Mustanski, and Kertes (2015) also report that externalizing problems (e.g. behavioral or conduct-related problems) mediated the relation between racial discrimination and internalizing problems (e.g. mood-related problems) for African American boys, but not girls (Liu et al., 2015). In previous research with Black youth, the rate of psychological distress varies by gender, therefore, identifying the ways that suicide risk factors interact with gender is essential to properly identifying suicide risk and related protective factors for Black boys and girls.

Gender Differences in Discrimination. Gender is also an important factor to examine regarding the influence of discrimination on Black youths' mental health. In their examination of the associations between discrimination and psychological outcomes of 1,170 African American and Caribbean Black youth, Seaton, Caldwell, Sellers, and Jackson (2008) found that both African American and Caribbean Black males report more discrimination experiences than their female counterparts. This difference in the amount of discrimination experiences by gender was

not associated with poorer mental health outcomes. Still, given that youth Black males and females may experience both distinct and overlapping forms of discrimination, it is important to recognize this gender-based disparity and continue to examine its potential long term impact on youths' experiences, as well as health outcomes by gender (Lewis, Cogburn, & Williams, 2015).

Gender Differences in Interpersonal Problems. Gender is also an important factor in Black youths' experiences of victimization and social connectedness. In a sample of urban, inner-city African American and Hispanic children, Storch, Nock, Masia-Warner, and Barlas (2003) report that boys experienced significantly more physical victimization (e.g. hitting, kicking, pushing) than girls. They also report, however, that there were no gender differences in the frequency of relationship-based victimization (spreading rumors, exclusion from social interactions), yet both physical and relationship-based victimization were associated with depressive symptoms, social avoidance, and loneliness, especially among girls (Storch, Nock, Masia-Warner, & Barlas, 2003). More recently, Lai & Kao (2017) identified that Black and Hispanic males report having had more experiences of bullying behaviors (e.g. being threatened, hit, or put down) than their White and female peers, but when asked whether they have been "bullied," are less likely to report being bullied. These findings point to inconsistencies in the current study of Black youths' victimization experiences, yet highlight the importance of examining differences in victimization by gender.

Additionally, researchers continue to identify gender differences in social connectedness among youth at elevated risk for suicide (Arango, Opperman, Gipson, & King, 2016). In a group of Hispanic and Black adolescents, Carbone-Lopez, Ebenson, and Brick (2010) report that both boys and girls experience direct and indirect bullying. The authors also indicate that boys were more likely to experience direct bullying than girls, and girls were more likely to experience

indirect forms of bullying than boys (Carbone-Lopez, Esbensen, & Brick, 2010). Relatedly, studies have also identified links between both forms of victimization and suicide risk among Black youth. In a longitudinal study of African American youth, Taylor, Sullivan, and Kliewer (2013) identified connections between victimization and suicide risk factors. The authors establish a longitudinal link between both physical and relational peer victimization and negative adjustment—specifically, depression, anxiety, and adjustment—among Black youth (K. A. Taylor, Sullivan, & Kliewer, 2013). Taken together, these findings highlight the ways Black youths' experiences with interpersonal problems differ by gender and the risk associated with different forms of victimization that impact both males and females.

Gender Differences in Religious Involvement. Previous studies also suggest that there may be gender differences in the impact of religious involvement among youth (Greening & Stoppelbein, 2002; Joe, 2006; Rew & Wong, 2006; King & Boyatzis, 2015). A review of religion and spirituality and health attitudes and behaviors, revealed that females had higher levels of religion and spirituality than their male counterparts (Rew & Wong, 2006). Previous studies have also found that females are more religious than males, tend to report more intrinsic religiosity than males, and are more likely to use more collaborative religious coping styles than males (Donahue & Benson, 1995; Greening & Stoppelbein, 2002; Spann, Molock, Barksdale, Matlin, & Puri, 2006; Milot & Ludden, 2009). These findings highlight gender differences in religious involvement, which suggest that girls may be more likely than boys to garner support from relationships within their religious communities (Desrosiers, 2012). Additionally, girls may be more likely to access these resources when managing aversive experiences (Desrosiers & Miller, 2007). As such, although religious coping strategies appear to be effective for all Black youth, it

may be the case that these effects are more strongly associated with positive mental health outcomes for girls than for boys.

In sum, gender is an important factor that influences many youths' outcomes with regard to suicide risk, relational risk, as well as religious involvement. Taking into account youths' unique experiences shaped by gender will have important implications for identifying suicide risk among Black youth.

# **Theoretical Framing**

This dissertation takes a strengths-based approach to examine the promotive and protective role of religious involvement on suicide risk in the lives of Black youth. Specifically, utilizing a risk and resilience framework, this dissertation aims to consider the cultural contexts in which Black youth live by examining a culturally relevant protective factor that could impact suicide risk. Risk and resilience frameworks have previously been applied to youth outcomes; however, this dissertation take a novel approach by applying this framework to a study of religious involvement in the context of interpersonal risk among a large sample of diverse Black youth and a sample of youth at increased risk of suicide.

In initial studies of resilience in psychology, the term was defined as doing well despite risk, yet as research seeks to expand the use of the concept for more diverse, process-oriented experiences, the definition has also shifted. A broadened definition, as indicated by Masten (2011), is "the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability, or development" (pg. 494). Recent work aims to both understand and promote resilience. Within clinical psychology's historically deficit-based framing to understand psychopathology, using the strengths-based approach of the risk and resilience framework to examine suicide risk follows a novel trend within the field. Additionally,

Arrington and Wilson (2000) stress the importance of incorporating culture and diversity when considering the concepts of risk and resilience, for example, identifying experiences of prejudice, racism, and discrimination as a normative stressor for minority youth. Likewise, the authors advocate for understanding and framing resilience as relational, in reference to subjective experiences of stress and with consideration of available resources (Arrington & Wilson, 2000). That is, resilience should always be assessed in relation to a person's context. Importantly, in the authors' review of risk and resilience, they highlight the lack of specific attention to the influence that culture—as a reflection of shared world views, meanings, and adaptive behaviors—can have on youths' resilience (Arrington & Wilson, 2000). Given that religious involvement is rooted in the cultural experiences of many Black families (Long, 1971; Mattis, Fontenot, Hatcher-Kay, Grayman, & Beale, 2004), the lack of attention to this particular culture-specific context in the lives of Black youth at risk for suicide is a gap in the current risk and resilience literature. This dissertation will address this gap by examining the role of religious involvement as a promotive and protective factor in the lives of a large sample of Back youth, as well a group of youth at risk for suicide.

In previous research, Everall, Altrows, and Paulson (2006) used a resilience framework to qualitatively examine young girls' subjective experiences in overcoming suicidality. The authors define resilience as an adaptive process whereby youth overcome adversities or threats to development through the utilization of internal and external resources. The authors report that among the youth in the study, resilience was a dynamic process of reciprocal interactions between the individual and her environment (Everall et al., 2006). Youth in the study found social support from various sources, and report that they turned to support from social organizations as compensation for lack of close social ties within other spheres such as school or

home. This study utilized a risk and resilience framework as a strength-based approach to examine suicidality in youth (Everall et al., 2006). The qualitative nature of the study provides an in depth, subjective perspective of girls' resilience in suicidality. Despite this novel use of the risk and resilience framework, there remain some gaps in understanding the ways that this model can be used to understand suicide risk among youth. Specifically, the framework has yet to be used to examine the role of religious involvement in serving as a promotive and protective factor. Though there exist various risk and resilience models, this dissertation will address the aforementioned gap by examining religious involvement both in a compensatory model of resilience to identify the main effects of religious involvement within the context of an interpersonal stressor (Fergus & Zimmerman, 2005; Masten, 2011) and an immunity versus vulnerability model of resilience to identify the interaction effects of religious involvement and an interpersonal stressor (Fergus & Zimmerman, 2005; Masten, 2011). Additionally, the framework has not yet been examined with regard to suicide risk among a diversity of Black youth. This dissertation will address this gap by examining the role of religious involvement as protective in the context of interpersonal challenges in a nationally representative sample of African American and Caribbean Black youth. This dissertation will also examine religious involvement as promotive among a unique sample of Black youth who are at elevated risk for suicide, as determined by their self-report of having interpersonal problems (low social connectedness or involvement in bullying).

Research has evolved to examine resilience as a dynamic process (Windle, 2011). Windle (2011) suggests that this broadened understanding allows for the ability to consider resilience as a process that encompasses adaptation within the context of persistent adversities, rather than isolated events. Discrimination and interpersonal problems, such as low social connectedness

and victimization, are examples of persistent adversities; therefore, the risk and resilience framework is a useful model with which to examine the role of religious involvement in the lives of Black youth. To that end, Study 1 will test a model of resilience that examines immunity versus vulnerability to investigate the influence of religious involvement on the relation between discrimination and suicide risk (Masten, 2011). In this cross-sectional model, the association of the interpersonal stressor (discrimination) with the outcome (suicide risk) varies based upon the level of the protective factor (religious involvement); the model tests the moderation effects of religious involvement on the relation between discrimination as a stressor and the outcome of suicide risk. Applying descriptions of protective models described by Zimmerman and colleagues (2013), if religious involvement is a protective factor, then adding this variable to the model would change the relation between discrimination and suicide risk factors. Study 2 will test a compensatory, or main effects, model of resilience (Masten, 2011). This model tests the additive effects of the interpersonal stressor (being an adolescent with interpersonal problems low social connectedness or involvement in bullying) and the promotive factor (religious involvement) to predict suicide risk. Again, applying descriptions of promotive models described by Zimmerman and colleagues (2013), if religious involvement is a promotive factor, then examining this variable in the model would produce a significant independent association with suicide risk, despite the association with the risk factor.

#### **Contributions of this dissertation**

As recently noted by Walker and colleagues (2016), previous work with adolescents rarely considered the impact of racism or discrimination as a risk factor for suicide among Black youth. Additionally, the authors suggest that there may be risk factors beyond those typically examined (e.g., depressive symptomatology) that also serve as predictors of suicide risk for

Black youth. Specifically, there is evidence that psychiatric disorders may influence suicide risk among Black youth, given the presence of multiple symptoms over an extended period of time and the accompanying impairment (Joe et al., 2009; Walker et al., 2016). Additionally, a recent meta-analysis highlights the need to modify current methods for assessing suicide risk; one suggestion is to continue examining multiple predictors (Franklin et al., 2017). This dissertation investigates multiple potential predictors of suicide risk among Black youth.

The current dissertation expands on previous work by testing the influence of promotive and protective factors in the context of suicide risk factors as well as relational risk factors among Black youth. The two current studies contribute to this growing literature by exploring the role discrimination and interpersonal problems (victimization or low social connectedness) play in the lives of Black youth. These studies seek to simultaneously identify the role of religious involvement as a promotive and protective factor for Black youth, even in the presence of discrimination and victimization or limited social experiences. Additionally, the dissertation examines Black youths' experiences with everyday discrimination and will explore these constructs for the proposed suicide risk factors of suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. The dissertation will also examine differences in these outcomes by gender.

Additionally, the dissertation builds upon a recent study that examined the role of discrimination and religious involvement in the lives of Black youth by separately examining the influence of each form of religious involvement on the relation between discrimination and suicide risk. Butler-Barnes et al. (2016) assessed the role of religious involvement in the lives of African American and Caribbean Black youth who experienced racial discrimination. Much like the current study, Butler-Barnes et al. (2016) utilized the same dataset as this dissertation, which

is the only nationally representative sample of Black adolescents to explicate the protective role of a culturally relevant construct—religious involvement. The authors also utilize a risk and resilience framework to explain the variety of potential outcomes Black youth could experience when faced with discrimination (Butler-Barnes et al., 2016). The authors suggest that religious involvement (non-organizational, organizational, and subjective religiosity) can be protective against the negative relation between discrimination, the risk factor, and youths' mental health (Butler-Barnes et al., 2016).

Utilizing the National Survey of American Life- Adolescent Supplement (NSAL-A) (Jackson et al., 2004; Kessler, 2011), Butler-Barnes and colleagues (2016) studied African American and Caribbean Black youth ages 13-17 and tested the protective value of religious involvement on the relation between discrimination and mental health. This study examined various aspects of religious involvement, including organizational religiosity, non-organizational religiosity, and subjective religiosity (Butler-Barnes et al., 2016). The authors also utilized a measure of Everyday Discrimination and conceptualized mental health as depressive symptoms, self-esteem, and perceived stress (Butler-Barnes et al., 2016). Results indicate that organizational religiousness and non-organizational religiousness were protective against discrimination with regard to depressive symptoms and perceived stress among Caribbean Black adolescents, but not African American adolescents (Butler-Barnes et al., 2016).

Butler-Barnes and colleagues (2016) work provides opportunities to expand and continue to contextualize the experiences of Black youth. Butler-Barnes and colleagues (2016) utilized a multidimensional measure of religious involvement, which examined organizational religiousness, non-organizational religiousness, and subjective religiosity. Although this enabled the authors to study a robust view of individuals' religious lives, a single question was used to

measure each aspect of religious involvement. The current study will extend this work by assessing religious involvement using similar constructs—private religious practices, religious (church-based) support, and organizational religiousness—and utilizing scales for each, rather than a single item measure. Utilizing a more detailed investigation of each individual aspect of religious involvement will provide a more thorough understanding of its influence on suicide risk among Black youth. Additionally, the authors measured mental health as depressive symptom severity, stress, and self-esteem (Butler-Barnes et al., 2016). Though these are important indicators of mental health, it may be important to think specifically about mental health constructs such as suicidal ideation, depression, anxiety, behavioral disorders, and substance use disorders, especially as they relate to suicide risk. For this reason, the current study examines suicidal ideation, depression, anxiety, behavioral disorders, and substance use disorders as outcomes. Additionally, the current study identifies differences by gender, as many authors have identified and established differences in victimization, religious involvement, and mental health outcomes by gender. Further, the current study identifies differences by ethnicity, as limited research exists examining differences in victimization, religious involvement, and mental health outcomes by ethnicity.

Overall, the previous studies outlined above provide insight into the important role of religious involvement in adolescents' mental health. However, there is still a need to identify whether and how religious involvement protects against suicide risk among Black adolescents, both over time and in the context of relational risk. Black adolescents who face challenging environmental stressors, do not have strong social connections, or experience some form of psychopathology may benefit from the promotive and protective effects of religious involvement. Additionally, this relation may be different for youth who are not connected to their

peers and social surroundings. In considering the social stressors that youth face, it may be increasingly important to further explore the value of Black adolescents' religious involvement (e.g. prayer, meditation, support, engagement with religious institutions), as these may be unique and important for those adolescents who experience relational risk factors. By applying a risk and resilience model examining the role of religious involvement among a diverse sample of Black youth within the context of interpersonal problems and discrimination experiences this dissertation provides an important contribution to the extant literature.

## Chapter III

Study One: The Moderating Role of Religious Involvement on the Relation Between

Discrimination and Suicide Risk Among a Representative Sample of Black Youth

Narrowing gaps in disparities are typically considered positive shifts towards more favorable health outcomes; however, the increase in suicide rates that narrows the gap between Black adolescents' suicide rates and the suicide rates of their White counterparts over a recent 35-year period is a trend that raises great concern. Previous studies of Black adults identify relations between religious involvement and suicide risk factors, highlighting nuances related to level and type of engagement and the differential positive effects individuals experience (Kleiman & Liu, 2014; Taylor, Chatters, & Joe, 2011). For example, in a study of Black adults, Taylor, Chatters, and Joe (2011) report that looking to God for strength, comfort, and guidance was protective against suicidal ideation and attempts for Black adults. However, in the same study, Taylor, Chatter, and Joe (2011) found that Black adults who reported that prayer was important also reported higher levels of suicidal ideation, and some Black adults also reported higher suicide attempts. Yet few studies have explored the role of religious involvement on Black adolescents' suicide risk (Rose et al., 2014). This study will examine the relation between discrimination and suicide risk, specifically suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders, among an ethnically diverse group of Black youth and identify whether and how religious involvement is associated with youths' suicide risk in the context of this relational risk. I anticipate that youths' ethnic backgrounds may lead to differential social experiences, and perceptions of these experiences, and these experience may

have different implications for the mental health outcomes of African American and Caribbean Black youth (Assari, Watkins, & Caldwell, 2015; Seaton, Caldwell, Sellers, & Jackson, 2010a; Assari & Caldwell, 2017b).

Suicide is a growing problem among Black youth (SPRC, 2013; Joe et al., 2009). Black adolescents who met criteria for mood or anxiety disorders also had increased risk of making a suicide attempt, and meeting criteria for three or more psychiatric disorders increased this risk (Joe et al., 2009). Additionally, disruptive or aggressive behavioral disorders have been associated with increased risk of substance use, and the latter increases the risk of suicide attempts (Gould et al., 1998; Kerr et al., 2013; Vander Stoep et al., 2011). These findings reinforce that there are multiple indicators of suicide risk beyond suicidal ideation. Therefore, it is important to examine these alternative psychiatric disorders as suicide risk factors. This is especially true within a population among whom suicide and mental health challenges have been stigmatized, and may be associated with underreporting (Rose, Joe, & Lindsey, 2011). Related to this, many Black adolescents who made a suicide attempt (47.3%) or reported having had suicidal ideation (41.3%) had never met criteria for any DSM-IV disorder, as assessed using fully structured diagnostic interviews (Joe et al., 2009). These data provide some insight into the risk profile of Black adolescents, and highlight the need for additional study of factors that might precede suicide-related behaviors among Black youth. I provide a review of current knowledge regarding risk factors for suicide-related behaviors, including relational factors such as discrimination, among Black adolescents, noting difference by ethnicity where possible, given the paucity of literature that examines differences in youths' experiences by ethnicity.

## **Risk Factors Among Black Adolescents**

Discrimination has deleterious effects on Black adolescents' mental health, especially depression, and a well-established and extensive body of literature identifies these harmful effects which have been associated with suicide risk (Brody et al., 2006; Greene et al., 2006; Priest et al., 2013; Smith-Bynum et al., 2014). Krieger (1999) defines discrimination as "a socially structured and sanctioned phenomenon, justified by ideology and expressed in interactions, among and between individuals and institutions, intended to maintain privileges for members of dominant groups at the cost of deprivation of others" (Krieger, 1999, p. 301).

Discrimination taints both societal and individual experiences and shapes societal distributions of health, wellness, access, and related to these—disease. The effects of racism and racial discrimination negatively influence health outcomes and perpetuate health disparities (Clark, Anderson, Clark, & Williams, 1999; Thoits, 2010).

Discrimination and Mental Health Among Black Youth. Discrimination is a risk factor for poor mental health among Black youth. Several studies have identified the negative association between discrimination and psychological health outcomes that have been associated with suicide risk among Black youth. Prelow, Danoff - Burg, Swenson, and Pulgiano (2004) studied the influence of cumulative environmental risk, defined by neighborhood disadvantage and stressful events, and discrimination on depressive symptoms and delinquent behavior among 319 high school students, ages 13-19 years old. The authors report that among the Black youth in this sample, discrimination exacerbated the negative impact of ecological risk on Black youths' psychological adjustment (Prelow et al., 2004).

Longitudinal associations between race-related discrimination and Black youth suicide risk factors have also been established (Brody et al., 2006; Greene et al., 2006; Smith-Bynum et al., 2014). Brody and colleagues (2006) found that discrimination was associated with increased

depressive symptoms among African American youth, ages 10-12 years old, over a five-year period. Greene and colleagues (2006) found that Black youth reported an increase in discrimination by both their peers and adults over the course of three years. Over the same three-year period, discrimination was also associated with increased depression symptoms and lower self-esteem among these youth (Greene et al., 2006). These findings highlight the adverse relation between discrimination and suicide risk factors among Black youth and highlight them as important points of focus for research in this area of study.

In a nationally representative sample of Black youth, Seaton and colleagues (2008) examined the experiences of 1,170 African American and Caribbean Black adolescents, ages 13-17, with regard to the association between everyday discrimination experiences and psychological well-being, defined as depressive symptoms, self-esteem, and life satisfaction. The authors also examined whether these associations were moderated by ethnicity among these adolescents (Seaton et al., 2008). Findings from this study reveal that both African American and Caribbean Black youth had experienced at least one act of discrimination in the past year, and that these experiences were associated with increased depressive symptoms, decreased selfesteem, and decreased life satisfaction (Seaton et al., 2008). The findings of this study provide evidence that experiences of discrimination are common for Black youth, and that these youths' mental health, specifically depressive symptomology, is affected by these negative experiences. A similar study by Seaton, Caldwell, Sellers, and Jackson (2010a) identified that Caribbean girls who experienced discrimination also reported higher depressive symptoms than Caribbean boys and African American boys and girls. Among the same group of African American and Caribbean Black youth, a later study that examined youths' discrimination attributions identified no significant differences in psychological well being by discrimination attribution (Seaton,

Caldwell, Sellers, Jackson, 2010b). Taken together, these findings suggest that youths' discrimination experiences may differ by ethnicity, yet are harmful for youth despite their attribution of these experiences to factors of gender, ethnicity, age, or otherwise.

Recently, Smith-Bynum et al. (2014) found that African American adolescents who reported increasing racial discrimination were also more like to report increasing depressive symptoms across their 7th through 10th grade years. A longitudinal study found that in a sample of Black youth, ages 10-12 years across a two-year time period, discrimination was associated with increased odds of death ideation, a symptom of depression (Walker et al., 2016). These findings suggest that discrimination plays an important role in the lives of Black youth. There is a need for future research that identifies additional factors at play in the link between discrimination and depression, such as moderators that may serve as additional risk or protective factors for African American and Caribbean Black youth suicide risk (Priest et al., 2013; Seaton et al., 2008).

A systematic review of 121 studies by Priest and colleagues (2013) examined 461 associations between racism and health among youth, age 18 and younger. The authors report that mental health outcomes, including anxiety and depression, were the most commonly studied outcome, as well as the outcomes most consistently associated with racial discrimination (Priest et al., 2013). The authors report that 76% of the poor mental health outcomes examined were associated with experiences of racial discrimination (Priest et al., 2013). They concluded that racial discrimination is a strong and consistent factor that is negatively associated with anxiety, depression, and psychological distress among youth (Priest et al., 2013). A meta-analysis by Schmitt, Branscombe, and Garcia (2014) also highlighted the pervasive negative effects of discrimination on psychological health. Specifically, the meta-analysis found significantly

negative effect sizes in both cross-sectional and longitudinal associations between discrimination and psychological distress, depression, anxiety, and negative mood among adolescents (Schmitt, Branscombe, Postmes, & Garcia, 2014). In a recent empirical study of African American and Caribbean Black youth, Hope, Assari, Cole-Lewis, and Caldwell (2017) found that discrimination experiences were associated with higher odds of meeting criteria for any lifetime psychiatric disorder (including mood disorders, anxiety disorders, substance use disorders, oppositional defiant disorder, conduct disorder, attention deficit/hyperactivity disorder, and eating disorders), but did not identify differences by ethnicity. Similarly, another recent empirical study of African American and Caribbean Black youth by Assari and colleagues (2017) identified that discrimination was associated with higher odds of experiencing suicidal ideation among Black youth, and did not identify differences by gender.

Over the years researchers have established links between discrimination and behavioral problems and substance use among Black youth (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Gibbons et al., 2010; Martin et al., 2011). In a study of African-American young adults, Caldwell and colleagues (2004) reported that having experiences with racial discrimination was strongly predictive of violent behavior for both males and females. Similarly, in a longitudinal study of Black youth and young adults, Martin and colleagues (2011) found that youths' personal experiences of discrimination predicted their later delinquency over time, but delinquency did not predict future discrimination experiences. Additionally, Gibbons and colleagues (2010) examine associations between discrimination and substance use among Black youth, both prospectively and experimentally. The authors reported that discrimination was prospectively associated with substance use five years later (Gibbons et al., 2010). Among a subset of these same youth in an experimental setting, the authors found that imagining a

discriminatory experience was associated with more drug willingness among Black youth (Gibbons et al., 2010).

These studies provide evidence that discrimination experiences are associated with negative outcomes related to the psychological health and well-being of Black youth that warrant in-depth study. Taken together, these findings suggest that Black youth experience discrimination and the influence of this relational risk can negatively influence suicide risk, both cross-sectionally, and over time.

### **Protective Factors Among Black Youth**

Though discrimination is a risk factor for suicide risk among Black adolescents, there are also protective factors to consider. Religious involvement is one such factor. Religious involvement has been associated with lower depression and suicidal ideation among Black adults (Kleiman & Liu, 2014; Taylor et al., 2011; Walker & Bishop, 2005). However, work exploring this relation among Black adolescents is limited. One study that examined religion and spirituality among a nationally representative sample of African American and Caribbean Black youth, controlled for ethnicity and found that the positive effect of religious involvement on psychosocial well-being, measured by perceived stress and diagnosis of an adolescent mental health disorder, among adolescents was mediated by youths' personal commitment or connection to their religious beliefs (i.e., religious commitment) (Rose et al., 2014). Recent studies identified the important associations between religious involvement and mental health. Butler-Barnes and colleagues (2016) found that African American and Caribbean Black youth who had low levels of religious involvement reported high levels of depressive symptoms. Another recent study indicated a buffering effects of emotional religious support, or feeling cared for by individuals in one's religious community, on psychiatric illness among African American and Caribbean Black

youth who experience discrimination (Hope, Assari, Cole-Lewis, & Caldwell, 2017). This study did not identify differences in these outcomes by youths' ethnicity. Expanding on this work, the current study seeks to identify whether religious involvement, operationalized to include measures of religiosity, such as personal religious connections and religious support, as well as measures of spirituality, can buffer the pernicious influence of discrimination on suicide risk among Black youth. Further, this study seeks to identify whether these findings differ by ethnicity for African American and Caribbean Black youth. To date, researchers have demonstrated the negative relations between discrimination and suicide risk factors among Black youth (Assari et al., 2017; Walker et al., 2016). Studies have also demonstrated the positive associations of religious involvement on the mental and psychological health of African American and Caribbean Black youth (Hope et al., 2017). However there remains a need to expand the current literature on these associations by conducting more in-depth examinations of religious involvement and suicide risk factors, as these are associations and outcomes that have yet to be studied among Caribbean Black youth.

A compensatory risk and resilience model suggest that in the presence of a risk factor such as discrimination, a protective factor such as religious involvement may weaken the strength of the negative relation between discrimination and suicide risk among Black youth. Therefore, the present study sought to examine the potential role of religious involvement on the relation between discrimination and suicide risk among African American and Caribbean Black youth. Given the paucity of studies within this population and the lack of convergence on a common effect of discrimination on mental health outcomes among Caribbean Black youth (Butler-Barnes et al., 2016; Hope et al., 2017), an examination would be an important addition to the extant literature.

## **Importance of Ethnicity**

As noted in some studies above, some scholars have identified the importance of attending to ethnicity to acknowledge how this specific identity may influence youths' experience and outcomes (Coll et al., 1996; Yip, Gee, and Takeuchi, 2008). Coll and colleagues (1996) highlight the importance of examining intersections of culture, ethnicity, and race within the context of youths' developmental processes. Youth who are members of immigrant communities likely have life experiences that are reflections of their ethnic backgrounds and that differ from their same-race peers who are not members of immigrant communities. Given that development occurs in dynamic interaction and process with youths' surrounding ecologies both proximal and distal—understanding this development requires explicit attention to these circumstances (Coll et al., 1996). Youth likely see and understand their experiences and interactions through the lens of their ethnic backgrounds. It follows that youth will also see and understand their experiences of discrimination, make attributions of this discrimination, and have outcomes associated with this discrimination that differ by their ethnic identities (Yip, Gee, & Takeuchi, 2008). Therefore, integrating these constructs within conceptual models to examine child development is a means of attending to the influence factors such as discrimination may have on the development, experiences, and outcomes of youth who identify with ethnic or racial minority groups (Coll et al., 1996). To that end, this study will examine ethnicity as an important factor that may be associated with youths' suicide risk.

## **Specific Aims**

The specific aims of this study were to examine how religious involvement, specifically private religious practices, religious (church-based) support, and organizational religiousness, influenced the relation between youths' experiences of everyday discrimination and five suicide

risk factors (suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders), in a nationally representative sample of Black youth. The first study aim examined the relation between discrimination and suicide risk factors. Given previous work that identified the negative relations between discrimination and psychiatric disorders among Black youth (Hope et al., 2017), I hypothesized that youths' experiences of discrimination will be positively associated with suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. A second study aim examined the influence of religious involvement on the relation between discrimination and suicide risk factors. Given previous work that indicates the protective influence of religious involvement on the relation between discrimination and psychological distress among Black youth (Butler-Barnes et al., 2016), I hypothesized that private religious practices, religious (church-based) support, and organizational religiousness would moderate the relation between youths' experiences of discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. A third study aim explored whether the influence of religious involvement on the relation between youths' experiences of discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders differs by gender or ethnicity in this sample. Given youths' differential experiences with and reports of discrimination (Seaton, Caldwell, Sellers, & Jackson, 2008), religious involvement (Desrosiers, 2012) and psychiatric disorders (Kessler et al., 2012), I hypothesize that religious involvement will be more strongly associated with mental health outcomes for girls than for boys. Given the dearth of research on ethnicity, and given the exploratory nature of this work, I make no specific hypotheses with regard to ethnicity.

**Aim 1.1:** The first aim of this study is to examine the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders in a nationally representative sample of Black youth ages 13-17 years. Hypothesis 1.1: I hypothesize that discrimination will be positively associated with suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders.

**Aim 1.2:** A second study aim of this study is to identify how private religious practices, religious/church-based support, and organizational religiousness influence the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. Hypothesis 1.2: I hypothesize that private religious practices, religious/church-based support, and organizational religiousness will moderate the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders for Black youth.

**Aim 1.3:** A third study aim is to examine whether the relations between discrimination, religious involvement, and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders differ by gender. Hypothesis 1.3: I hypothesize that the influence of religious involvement on the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders will be moderated by gender, such that the effects of religious involvement will be stronger for Black females than for Black males.

**Aim 1.4:** A fourth study aim is to examine whether relations between discrimination, religious involvement, and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders differ by ethnicity. Hypothesis 1.4: I make no specific hypotheses with regard to ethnicity, rather seek to identify whether the influence of religious

involvement on the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders will differ for African American and Caribbean Black youth, and whether these relations will differ by gender within each ethnicity group.

#### Methods

# **Participants**

Respondents are African American and Caribbean Black youth who participated in the National Survey of American Life (NSAL) between 2001 and 2003 (Jackson et al., 2004). The NSAL study is part of an NIMH Collaborative Psychiatric Epidemiology Surveys (CPES) initiative that includes three nationally representative surveys - the NSAL, the National Comorbidity Survey Replication (NCS-R), and the National Latino and Asian American Study (NLAAS) (Pennell et al., 2004). The NSAL adult study is based upon an integrated national household probability sample of 3570 African Americans, 891 non-Hispanic Whites, and 1621 Blacks of Caribbean descent (Caribbean Blacks); a total sample of 6082 individuals aged 18 and over (Jackson et al., 2004). The study was approved by the institutional review board at the University of Michigan.

The original adolescent sample (NSAL-A) consisted of 1,193 cases. Twenty-three of these cases were dropped for analyses because participants were 18 or 19 years at the time of the interview. Thus, the resulting analysis sample consists of 1,170 African American (n = 810) and Caribbean Black (n = 360) youths ranging in age from 13 to 17 years, who were attached to the adult households. The overall sample is composed of male (n = 562 unweighted, 50% weighted) and female participants (n = 608 unweighted, 50% weighted). The mean age of participants in this sample is 15 years (SD=1.42 years). Approximately, 96% of the sample was still enrolled in

high school at the time of data collection. The median family income was \$28,000 (approximately \$26,000 for African Americans and \$32,250 for Caribbean Blacks) (Joe et al., 2009).

The NSAL adolescent sample weights adjust for variation in probabilities of selection within households, and for the non-response of households and individuals. The weighted sample was post-stratified to national population distributions for gender (males and females) and age (13 through 17) subgroups among Black youth. Data were collected using a stratified and clustered sample design, and weights were created to account for unequal probabilities of selection, non-response, and post-stratification. These characteristics categorize the NSAL as a complex sample survey and the weighting process allows accurate interpretation of data for the national population of Black youth (Rose et al., 2014).

## Procedure

Interviews were conducted with 1,170 African American and Caribbean Black adolescents, 13-17 years of age, who were attached to the NSAL adult households. Every participating NSAL household was screened for an eligible adolescent, and adolescents were selected using a randomized procedure. If more than one adolescent was eligible for the study, two participants were selected. If possible the second adolescent selected was of a different gender. This resulted in non-independence for some households; therefore, the data were weighted to adjust for non-independence in the within household selection probabilities, along with non-response rates across individuals and households. These weighted data were post-stratified to approximate the national population distributions for gender (males and females) and age (13 through 17) subgroups among African American and Caribbean Black youth. Most of the interviews with adolescents were conducted face-to-face using a computer-assisted

instrument. About 18% of interviews were conducted either entirely or partially by telephone. The final overall response rate for the adolescent sample was 80.6%, with response rates of 80.4% and 83.5% for African American and Caribbean Black adolescents, respectively. The African American adolescent interviews averaged 1 hour and 40 minutes in length and Caribbean adolescent interviews averaged 1 hour and 50 minutes. Respondents were paid \$50 for their participation in the study.

#### Measures

Suicidal Ideation. Suicidal ideation was assessed as a one question, self-report item. Interviewers prompted all youth in the study by saying, "Three experiences are listed in your booklet on page 25 labeled A, B, and C. Did experience A ever happen to you?" Youth were then prompted to review Experience A, which read "You seriously thought about killing yourself." Respondents could select any of the following response options: Yes, No, Don't Know, Refuse. In cases where youth were unable to read the Experience A, the interviewer read Experience A aloud to them and awaited their response, using the same response options. Experiences B and C were "You made a plan for killing yourself," and "You tried to kill yourself," respectively. Suicidal ideation was treated as a dichotomous variable (1=present, 0=absent). Previous studies have utilized this and similar one-item measures to examine suicidal ideation among youth (Joe, Baser, Neighbors, Caldwell, & Jackson, 2009; Nock et al., 2013) and Black populations (Assari, Lankarani, & Moazen, 2012; Taylor et al., 2011). Experiences B and C were not analyzed in the present study in order to maintain the suicide risk framing of the study rather than expanding to include youth who had attempted suicide.

**Depression.** Lifetime Major Depressive Disorder (MDD) was measured using a modified World Health Organization Composite International Diagnostic Interview (CIDI) (Assari &

Caldwell, 2015; Joe et al., 2009; Kessler et al., 1998; Wittchen, 1994). The CIDI is a layadministered diagnostic interview based on classifications of psychiatric disorders, as defined by the DSM-IV and the International Statistical Classification of Diseases, 10th Revision (Andrews & Peters, 1998). Trained interviewers conducted diagnostic interviews using the CIDI. Respondents first answered an initial screening question which read, "Have you ever in your life had a time lasting a few days or longer when most of the day you felt sad, empty or depressed?" Based on a positive response to this initial screening question, interviewers proceeded with questions from the diagnostic interview. Sample interviewer prompts are, "...did you ever feel discouraged about how things were going in your life?" Participants responded to the interviewer's prompts by choosing from the following response options: Yes, No, Don't Know, Refuse. The following prompts assessed each diagnostic criterion for MDD and instituted a skip pattern for follow up questions. Example follow up questions included "Was there ever a time when you felt this way [lost interest and became really bored with most things like school, work, hobbies, and other things you usually enjoy] most of the day almost every day for two weeks or longer?" Respondents were provided with the following response options: Yes, No, Don't Know, Refuse. The final scoring of the depression measure produced a dichotomous score (1=present, 0=absent), based on whether participants met criteria for MDD at any point in their lifetime. This measure has been widely utilized in examinations of psychiatric disorder among adolescents (Nock et el., 2013; Kessler et al., 2012) and Black populations (Assari et al., 2012; Joe et al., 2006). Few studies utilize this measure among diverse samples of Black adolescents (Joe et al., 2009).

**Anxiety.** Generalized Anxiety Disorder (GAD) was assessed using the modified CIDI (Assari & Caldwell, 2015; L. N. Robins et al., 1988; Wittchen, 1994). In the present study,

Anxiety Disorder is defined based on whether youth had been diagnosed with Generalized Anxiety Disorder at any point in their lifetime. Trained interviewers conducted diagnostic interviews using the CIDI, which assessed Generalized Anxiety Disorder based on DSM IV Criteria. Respondents first answered an initial screening question, for example, "Did you ever have a time in your life when you were a "worrier" – that is, when you worried a lot more about things than other people with the same problems as you?" Based on a positive response to the initial screening questions, interviewers proceeded with questions from the diagnostic interview. A sample interviewer prompts is, "...what kinds of things were you worried or nervous or anxious about during that time?" Participants were then probed for up to three of examples of the things that made them worried, nervous, or anxious. This prompt was followed by questions to assess whether the participant's worry met criteria for Anxiety Disorders. For example, "During that time [when your worry was the worst], did you often have any of the following experiences: Did you often feel restless or on edge?" Participants responded to the interviewer's prompts by choosing from the following response options: Yes, No, Don't Know, Refuse. The following prompts assessed each diagnostic criterion for Anxiety Disorders and instituted a skip pattern for follow up questions. The final scoring of the anxiety measure produced a dichotomous score (1=present, 0=absent), based on whether participants met criteria for GAD at any point in their lifetime. This measure has been previously utilized in examinations of psychiatric disorder among adolescents (Nock et el., 2013; Kessler et al., 2012) and Black populations (Assari, Lankarani, and Moazen, 2012; Joe et al., 2006). Limited studies have utilized this measure to assess Black adolescents' mental health (Joe et al., 2009).

**Disruptive Behavior Disorders.** Disruptive Behavior Disorders were assessed using the modified CIDI (Assari & Caldwell, 2015; L. N. Robins et al., 1988; Wittchen, 1994). In the

present study, Disruptive Behavior Disorders are defined based on whether youth had been diagnosed with an Disruptive Behavior Disorder, including Oppositional Defiant Disorder (ODD), or Conduct Disorder (CD) at any point in their lifetime. Trained interviewers conducted diagnostic interviews using the CIDI, which assessed Disruptive Behavior Disorders based on DSM IV Criteria. Respondents first answered an initial screening question, for example, "Did you ever have a period lasting six months or longer when you often did things that got you in trouble with adults such as losing your temper, arguing or talking back to adults, refusing to do what your teachers or parents asked you to do, annoying people on purpose, or being grouchy or *irritable?*" Based on a positive response to the initial screening questions, interviewers proceeded with questions from the diagnostic interview. A sample interviewer prompts is, "Did you often lose your temper?" Participants responded to the interviewer's prompts by choosing from the following response options: Yes, No, Don't Know, Refuse. The following prompts assessed each diagnostic criterion for Disruptive Behavior Disorders and instituted a skip pattern for follow up questions. The final scoring of the Disruptive Behavior Disorders measure produced a dichotomous score (1=present, 0=absent), based on whether participants met criteria for ODD or CD at any point in their lifetime. This measure has been widely utilized in examinations of psychiatric disorder among adolescents (Nock et el., 2013; Kessler et al., 2012) and Black populations (Assari et al., 2012; Joe et al., 2006). Few studies utilize this measure among diverse samples of Black adolescents (Joe et al., 2009).

**Substance Use Disorders.** Substance Use Disorders were assessed using the modified CIDI (Assari & Caldwell, 2015; L. N. Robins et al., 1988; Wittchen, 1994). In the present study, Substance Use Disorders (SUD) are defined based on youth reported behaviors consistent with criteria for a diagnosis of Alcohol Abuse, Alcohol Dependence, Drug Abuse, Drug Dependence,

or Tobacco Use/Nicotine Dependence at any point in their lifetime. Trained interviewers conducted diagnostic interviews using the CIDI, which assessed Substance Use Disorders based on DSM IV Criteria. Interviewers asked, "Think about the time in your life when you drank most. During that time, how often did you usually have at least one drink – nearly every day, three to four days a week, one to two days a week, one to three days a month, or less than once a month?" Participants responded to the interviewer's prompts by choosing from the following response options: Yes, No, Don't Know, Refuse. The following prompts assessed each diagnostic criterion for Substance Use Disorders and instituted a skip pattern for follow up questions. The final scoring of the Substance Use Disorders measure produced a dichotomous score (1=present, 0=absent), based on whether participants met criteria for SUD at any point in their lifetime. Previously this measure has been utilized in examinations of psychiatric disorder among adolescents (Nock et el., 2013; Kessler et al., 2012) and Black populations (Assari et al., 2012; Joe et al., 2006). Limited studies have utilized this measure to assess Black adolescents' mental health (Joe et al., 2009).

Everyday Discrimination. The Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997) is a 13-item measure that assesses the chronicity of youth's routine encounters with subtle, unfair treatment (Essed, 1991; Williams et al., 1997). Youth were asked to report how often they experience unfair treatment in their daily lives. Experiences assessed did not make reference to race or any other social identity. Sample items are, "You are treated with less respect than others," and "You are followed around in stores." Responses were rated on a 6-point Likert-type scale from (1) almost every day to (6) never. The Everyday Discrimination measure demonstrated high reliability in this sample, Cronbach's  $\alpha$ =.84, and has established construct validity in similar samples (Clark, Coleman, & Novak, 2004; Seaton et al., 2008;

Seaton, Caldwell, Sellers, & Jackson, 2010a). Rather than assessing the number of discrimination experiences by computing this measure as a count variable, the present analyses analyzed both exposure to and frequency of discrimination events by summing responses to identify a total score (Seaton et al., 2008; Seaton et al., 2010a). Higher scores on this measure indicate more and more frequent discrimination experiences.

Brief Multidimensional Measure of Religiousness/Spirituality. The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS) (Abeles et al., 1999; Fetzer, 2003) was used to measure religious and spiritual practices, support, and involvement. Three subscales were summed individually to assess each unique form of religious involvement: Private Religious Practices was assessed using a five-item measure; Religious (Church-Based) Support was assessed using a four-item measure; and Organizational Religiousness was assessed using a two-item measure. A sample of a Private Religious Practices item is "How often do you read religious books or other religious materials?" Items were assessed on a 4-point Likert-type scale ranging from (1) very often to (4) never. Reliability for the Private Religious Practices scale demonstrated was Chronbach's  $\alpha = .77$ . A sample of a Religious (church-based) Support item is "How often do the people in your place of worship make you feel loved and cared for?" Items were assessed on a 4-point Likert-type scale ranging from a (1) great deal to (4) never. Items on the scale were reverse scored so that higher scores were associated with more Religious (churchbased) Support. Reliability for the Religious (church-based) Support scale demonstrated was Chronbach's  $\alpha = .75$ . A sample of an Organizational Religiousness item is "How often do you usually attend religious services?" This item was assessed on a 6-point Likert-type scale ranging from (1) nearly everyday to (6) never. Items on the scale were reverse scored so that higher scores were associated with greater Organizational Religiousness. Reliability for the

Organizational Religiousness scale demonstrated was Chronbach's  $\alpha$  = .67. This measure has been negatively correlated with suicide risk in youth (Cole-Lewis et al., 2016) and psychiatric disorders among Black adolescents (Hope et al., 2017).

# **Statistical Analyses**

Descriptive statistics were computed for the primary study variables and correlational analyses were conducted to examine bivariate associations between primary study variables. The first study aim was to examine the relation between everyday discrimination and suicide risk factors, specifically, any lifetime report of suicidal ideation, or meeting criteria for Major Depressive Disorder, Generalized Anxiety Disorder, Disruptive Behavior Disorders (Oppositional Defiant Disorder or Conduct Disorder), and Substance Use Disorders (Alcohol Abuse Disorder or Drug Use Disorder), controlling for age and ethnicity. I hypothesized that discrimination would be positively correlated with suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. In order to test these hypotheses, a multivariate logistic regression analysis was conducted to examine the relation between religious involvement and suicidal ideation, depression, anxiety, behavioral disorders, and substance use disorders. The first regression model examined the relation between discrimination and suicidal ideation; a related regression model examined the relation between discrimination and depression; a related regression model regression model examined the relation between discrimination and anxiety; another regression model examined the relation between discrimination and disruptive behavior disorders; a final regression model examined the relation between discrimination and substance use disorders.

A second study aim was to identify how religious involvement, defined as private religious practices, religious/church-based support, and organizational religiousness, influences

the relation between discrimination and suicide risk. I hypothesized that religious involvement (private religious practices, religious (church-based) support, and organizational religiousness) would moderate the relation between discrimination and suicide risk for Black youth. Suicide risk was operationally defined by youth responses to diagnostic criteria assessments of suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. In order to test these hypotheses, private religious practices (PRP), religious (church-based) support (RS/CS), and organizational religiousness (OrgR) were added as interaction terms (PRP x discrimination (DISC); RS/CS x DISC; OR x DISC) to logistic regression models examining the relation between (1) discrimination and suicidal ideation, (2) discrimination and depression, (3) discrimination and anxiety, (4) discrimination and disruptive behavior disorders, and (5) discrimination and substance use disorders to examine their moderation effects on these relations

A third study aim was to examine whether the relations between discrimination, religious involvement, and suicidal ideation, depression, anxiety, disruptive behavior disorders, substance use disorders, and suicidal ideation differed by gender. I hypothesized that the association of religious involvement on the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders would differ by gender, such that the effect of religious involvement (private religious practices, religious (church-based) support, and organizational religiousness) would be stronger for Black girls than for Black boys. To test these hypotheses, each predictive model was conducted separately for boys and girls. A multivariate logistic regression model was constructed to identify whether discrimination was associated with suicide risk among boys. A separate model examined whether discrimination was associated with suicide risk for girls. A subsequent model examined associations between

religious involvement and suicide risk for boys. A related model examined the associations between religious involvement and suicide risk for girls. The final models added interaction terms between religious involvement and discrimination to examine this moderated association for boys only. An identical model was created to examine these relations for girls only.

A fourth study aim was to examine whether the relations between discrimination, religious involvement, and suicidal ideation, depression, anxiety, disruptive behavior disorders, substance use disorders, and suicidal ideation differed by ethnicity. I made no hypothesis regarding the association of religious involvement on the relation between discrimination and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders moderated by ethnicity. Rather, I intended to simply examine these relations to learn additional information about difference within a group of Black youth. To examine these questions, each predictive model was conducted separately for African American and Caribbean Black youth. A multivariate logistic regression model was constructed to identify whether discrimination was associated with suicide risk among African American youth. A separate model examined whether discrimination was associated with suicide risk for Caribbean Black youth. A subsequent model examined associations between religious involvement and suicide risk for African American youth. A related model examined the associations between religious involvement and suicide risk for Caribbean Black youth. The final models added interaction terms between religious involvement and discrimination to examine this moderated association for African American youth only. An identical model was created to examine these relations for Caribbean Black youth only. Further, given the aim to identify potential differences in these associations by gender, the study sample was again divided by gender and analyses described

above were conducted separately for African American girl and boys and Caribbean Black girls and boys.

#### Results

# **Descriptive Statistics**

Table 1.1 presents frequency and descriptive statistics for all primary study variables. The weighted percentages of boys (48%) and girls (52%) are roughly equivalent. There were 810 African American youth and 360 Caribbean Black youth in the sample. More girls reported suicidal ideation (F(1, 1127) = 4.11, p = .04) than boys. More boys reported lifetime substance use disorders (F(1, 1130) = 14.05, p < .001) than girls. Boys reported more experiences of everyday discrimination (t(1130) = 5.59, p = .02) than girls. On average, youth reported engagement with private religious practices (M = 12.97, SD = 3.39), religious support (M = 11.87, SD = 3.36), and organizational religiousness (M = 7.04, SD = 1.81). Girls reported engaging in more non-organizational private religious practices (t(1130) = 10.05, p = .002) and organizational religious activities than boys (t(999) = 6.80, p = .009). There were no gender differences among other primary study variables.

## **Logistic Regressions**

Logistic regression analyses were conducted (see Tables 1.2 – 1.13) to examine associations of religious involvement and gender with suicidal ideation (SI), depression (MDD), anxiety (GAD), disruptive behavior disorders (DBD), and substance use disorders (SUD) among all youth in the sample. Given the concern raised in the extant literature regarding variation in religious spiritual development and suicidal ideation based on adolescents' ages (Kub & Solari-Twadell, 2013), age was considered a covariate in the present dissertation study. The limited knowledge about Black youth religious and spiritual development in relation to suicide risk,

suggests that a preliminary look at the effects be prioritized rather than narrowing the group by age.

Main Effects of Discrimination, Gender, Ethnicity, and Age on Suicide Risk Factors

Table 1.2 presents outcomes for the main effects of discrimination, gender, ethnicity, and age.

**Suicidal Ideation.** In identifying the associations for suicidal ideation, everyday discrimination (OR = 1.09, p = .009; 95% CI [1.02, 1.15]), female gender (OR = 1.88, p = .034; 95% CI [1.05, 3.37]), and age (OR = 1.17, p = .050; 95% CI [1.00, 1.36]) were significantly associated with increased odds of reporting suicidal ideation. Therefore, with every one-unit increase in everyday discrimination, that is, an increase in exposure and frequency of everyday discrimination, Black youth were 9% more likely to report having suicidal ideation. Additionally, female gender increased the odds of reporting suicidal ideation by 88% and a one year increase in age increased the odds of reporting suicidal ideation by 17%. Ethnicity was not significantly associated with the odds of reporting suicidal ideation.

**Major Depressive Disorder.** With regard to Major Depressive Disorder, everyday discrimination (OR = 1.11, p = .011; 95% CI [1.02, 1.19]) and age (OR = 1.30, p = .02; 95% CI [1.05, 1.62]) were significantly associated with the odds of meeting criteria for MDD. Therefore, with every one-unit increase in exposure and frequency of everyday discrimination, Black youths' risk of meeting criteria for Major Depressive Disorder increased by 11%. Likewise, with every one year increase in age, Black youth were 30% more likely to meet criteria for Major Depressive Disorder. Gender and ethnicity were not significantly associated with the odds of meeting criteria for Major Depressive Disorder.

**Generalized Anxiety Disorder.** Neither everyday discrimination, ethnicity, gender, nor age were significantly associated with meeting criteria for Generalized Anxiety Disorder among Black youth.

**Disruptive Behavior Disorders.** In identifying the associations for Disruptive Behavior Disorders, everyday discrimination (OR = 1.08, p = .029; 95% CI [1.01, 1.15) and age (OR = 1.22, p = .004; 95% CI [1.07, 1.40]) were significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders. Therefore, as Black youth report more experiences with everyday discrimination, they were also 8% more likely to meet criteria for Disruptive Behavior Disorders. Additionally, with every one year increase in age, Black youth were 22% more likely to meet criteria for Disruptive Behavior Disorders. Gender and ethnicity were not significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders.

**Substance Use Disorders.** In the examination of Substance Use Disorders, gender (OR = .27, p = .001; 95% CI [.13, .54]) and age (OR = 2.03, p < .001; 95% CI [1.48, 2.80]) were significantly associated with the odds of meeting criteria for a Substance Use Disorder. Therefore, female gender decreased the odds of meeting criteria for a Substance Use Disorder by 73%. Additionally, with every one year increase in age, the odds of meeting criteria for a Substance Use Disorder increased by 103% among Black youth. Everyday discrimination and ethnicity were not significantly associated with the odds of meeting criteria for Substance Use Disorders.

Associations between Religious Involvement and Suicide Risk Factors

Table 1.3 displays outcomes for direct effects between everyday discrimination and suicide risk factors after adding religious involvement to the logistic regression analyses. Direct associations between private religious practices, religious (church-based) support, and

organizational religiousness and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders were first assessed. Religious involvement measures were added to logistic regression analyses to identify the associations between religious involvement and suicide risk factors among Black youth (Table 1.3).

Religious Involvement and Suicidal Ideation. When assessing the direct association between religious involvement (private religious practices, religious (church-based) support, and organizational religiousness) and suicidal ideation, these predictors were not significantly associated with lower odds of reporting suicidal ideation. However, everyday discrimination (OR = 1.09, p = .016; 95% CI [1.02, 1.16]) and age (OR = 1.17, p = .039; 95% CI [1.01, 1.36]) remained significant predictors of suicidal ideation. Therefore, with more everyday discrimination exposure and frequency, Black youth were 9% more likely to report having suicidal ideation. Additionally, older age increased the odds of reporting suicidal ideation by 17%.

**Religious Involvement and Major Depressive Disorder.** When assessing the direct association between religious involvement and major depressive disorder, these predictors were not significantly associated with lower odds of reporting major depressive disorder. However, everyday discrimination (OR = 1.13, p = .004; 95% CI [1.04, 1.23]) and age (OR = 1.28, p = .017; 95% CI [1.05, 1.56]) remained significantly associated with the odds of meeting criteria for Major Depressive Disorder. Therefore, with more everyday discrimination exposure and frequency, Black youth were 13% more likely to meet criteria for Major Depressive Disorder, and older age increased the odds of meeting criteria for Major Depressive Disorder by 28%.

Religious Involvement and Generalized Anxiety Disorder. When assessing the direct association between religious involvement and generalized anxiety disorder, these predictors

were not significantly associated with lower odds of reporting generalized anxiety disorder.

There were no significant associations between religious involvement or any other predictors with regard to meeting criteria for Generalized Anxiety Disorder.

Religious Involvement and Disruptive Behavior Disorders. When assessing the direct association between religious involvement and disruptive behavior disorders, these predictors were not significantly associated with lower odds of reporting disruptive behavior disorders. However, everyday discrimination (OR = 1.08, p = .015; 95% CI [1.02, 1.15]) and age (OR = 1.20, p = .030; 95% CI [1.02, 1.40]) remained significant predictors of the odds of meeting criteria for Disruptive Behavior Disorders. Therefore, with increases in everyday discrimination exposure and frequency, Black youth were 8% more likely to meet criteria for Disruptive Behavior Disorders and older age increased the odds of reporting suicidal ideation by 20%.

Religious Involvement and Substance Use Disorders. When assessing the relation between religious involvement and Substance Use Disorders, Organizational Religiousness (OR = .72, p = .001; 95% CI [.60, .86]) was significantly associated with lower odds of meeting criteria for Substance Use Disorder. As youth reported more organizational religiousness, the odds of meeting criteria for Substance Use Disorder decrease by 28%. Additionally, ethnicity (OR = .27, p = .007; 95% CI [.10, .68]) was significantly associated with meeting criteria for Substance Use Disorders, therefore, being of Caribbean ethnicity decreased the odds of meeting criteria for Substance Use Disorder by 73%. Gender (OR = .29, p = .002; 95% CI [.13, .62]) remained a significant predictor of the odds of meeting criteria for Substance Use Disorders, therefore, female gender decreased the odds of meeting criteria for Substance Use Disorder by 75%. Age (OR = 1.97, p < .001; 95% CI [1.38, 2.81]) also remained a significant predictor of the

odds of meeting criteria for one or more Substance Use Disorders. With every one year increase in age, the odds of Black youth meeting criteria for a Substance Use Disorder increase by 97%.

Moderating Effects of Religious Involvement on Everyday Discrimination and Suicide Risk

Religious Involvement variables were entered into these models as a moderator to identify the interactions between everyday discrimination and suicide risk factors (Table 1.4).

Religious Involvement as a Moderator between Everyday Discrimination and Suicidal Ideation. There were no interaction effects in the associations between everyday discrimination and religious involvement (non-organizational private religious practices, religious support, and organizational religiousness) with suicidal ideation.

Religious Involvement as a Moderator between Everyday Discrimination and Major Depressive Disorder. There were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder.

Religious Involvement as a Moderator between Everyday Discrimination and Generalized Anxiety Disorder. There were no interaction effects in the associations between everyday discrimination and non-organizational private religious practices with Generalized Anxiety Disorder. Similarly, there were no interaction effects in the associations between everyday discrimination and organizational religiousness with Generalized Anxiety Disorder. However, religious support was a moderator of the relation between everyday discrimination and Generalized Anxiety Disorder. There was a marginally significant association between the interaction of everyday discrimination and religious support (OR = .97, p = .048; 95% CI [.95, 1.00]) on the association between everyday discrimination and Generalized Anxiety Disorder. Therefore, as youth reported more religious support, the additional odds of meeting criteria for Generalized Anxiety Disorder due to exposure to everyday discrimination decreased by 3%. Of

note, there were no Caribbean Black males who met criteria for Generalized Anxiety Disorder, therefore this model is predicting Generalized Anxiety Disorder among African American males, African American females, and Caribbean Black females.

Religious Involvement as a Moderator between Everyday Discrimination and

Disruptive Behavior Disorders. There were no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders.

Religious Involvement as a Moderator between Everyday Discrimination and Substance Use Disorder. There were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder.

Moderating Effects of Religious Involvement on Everyday Discrimination by Gender

Each model was separated by gender to examine whether there were variations in the associations between religious involvement as a moderator of the relation between everyday discrimination and suicide risk factors (Tables 1.5-1.6). Religious involvement variables were entered into the separate gender models as a moderator to identify the interactions between everyday discrimination and suicide risk factors.

Differences in Religious Involvement as a Moderator between Everyday Discrimination and Suicidal Ideation by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement (non-organizational private religious practices, religious support, and organizational religiousness) with suicidal ideation for boys. When examined among girls only, religious support was a moderator of the relation between everyday discrimination and suicidal ideation. There was a significant association between the interaction of everyday discrimination and organizational religiousness (OR = .95, p = .023; 95% CI [.91, .99]) on the association between everyday discrimination and

suicidal ideation among girls. Therefore, as girls reported more organizational religiousness, the additional odds of having experienced suicidal ideation due to exposure to everyday discrimination decreased by 5%.

Discrimination and Major Depressive Disorder by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for girls.

Discrimination and Generalized Anxiety Disorder by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Generalized Anxiety Disorder for boys. There were no Caribbean Black males who met criteria for Generalized Anxiety Disorder, therefore this model is predicting Generalized Anxiety Disorder among African American males only. There were no interaction effects in the associations between everyday discrimination and religious involvement with Generalized Anxiety Disorder for girls.

Discrimination and Disruptive Behavior Disorders by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders for boys. There were also no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders for girls.

Discrimination and Substance Use Disorder by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder for boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder for girls.

Main Effects of Discrimination, Gender, and Age on Suicide Risk Factors by Ethnicity

To explore differences by ethnicity, all models were repeated in subpopulation samples divided by ethnicity. Table 1.7 presents outcomes for the main effects of discrimination, gender, and age by ethnicity.

**Suicidal Ideation.** In identifying the associations for suicidal ideation among African Americans, everyday discrimination (OR = 1.08, p = .019; 95% CI [1.01, 1.15]) and age (OR = 1.16, p = .049; 95% CI [1.00, 1.34]) were significantly associated with increased odds of reporting suicidal ideation. Therefore, with every one-unit increase in everyday discrimination, that is, an increase in exposure and frequency of everyday discrimination, African American youth were 8% more likely to report having suicidal ideation. Additionally, a one year increase in age increased the odds of reporting suicidal ideation by 16% among African American youth. Gender was not significantly associated with the odds of reporting suicidal ideation for African American youth. Among Caribbean Black youth, everyday discrimination (OR = 1.19, p = .008; 95% CI [1.05, 1.34]) was significantly associated with increased odds of reporting suicidal ideation. Therefore, with every one-unit increase in exposure and frequency of everyday discrimination, Caribbean Black youth were 19% more likely to report having suicidal ideation. Gender and age were not significantly associated with the odds of reporting suicidal ideation for Caribbean Black youth.

**Major Depressive Disorder.** With regard to Major Depressive Disorder, everyday discrimination (OR = 1.10, p = .019; 95% CI [1.02, 1.19]) and age (OR = 1.29, p = .033; 95% CI [1.02, 1.64]) were significantly associated with the odds of meeting criteria for MDD among African American youth. Therefore, with every one-unit increase in exposure and frequency of everyday discrimination, African American youths' risk of meeting criteria for Major Depressive Disorder increased by 10%. Likewise, with every one year increase in age, African American youth were 29% more likely to meet criteria for Major Depressive Disorder. Gender was not significantly associated with the odds of meeting criteria for Major Depressive Disorder. Among Caribbean Black youth, female gender (OR = 2.98, p = .046; 95% CI [1.03, 8.67]), was significantly associated with meeting criteria for Major Depressive Disorder. Caribbean Black girls were 198% more likely to meet criteria for Major Depressive Disorder than Caribbean Black boys. Everyday discrimination and age were not significantly associated with the odds of meeting criteria for Major Depressive Disorder Black youth.

Generalized Anxiety Disorder. There were no significant associations between everyday discrimination, gender, or age on meeting criteria for Generalized Anxiety Disorder among African American youth. With regard to Caribbean Black youth, age (OR = .58, p = .032; 95% CI [.35, .95]) was significantly associated with the odds of meeting criteria for Generalized Anxiety Disorder among Caribbean Black youth; however there were no Caribbean Black males who met criteria for Generalized Anxiety Disorder, therefore, when stratified by ethnicity, this model only represents associations for Caribbean Black girls. Therefore, with every one year increase in age, Caribbean Black girls were 42% less likely to meet criteria for Generalized Anxiety Disorder.

Disruptive Behavior Disorders. In identifying the associations for Disruptive Behavior Disorders among African American youth, age (OR = 1.22, p = .005; 95% CI [1.07, 1.41]) was significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders. Therefore, with every one year increase in age, African American youth were 22% more likely to meet criteria for Disruptive Behavior Disorders. Everyday discrimination and ethnicity were not significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders for African American youth. Among Caribbean Black youth, everyday discrimination (OR = 1.22, p < .001; 95% CI [1.11, 1.33) was significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders. Therefore, as Caribbean Black youth report more experiences with everyday discrimination, they were also 22% more likely to meet criteria for Disruptive Behavior Disorders. Gender and age were not significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders among Caribbean Black youth.

Substance Use Disorders. In the examination of Substance Use Disorders for African American youth, gender (OR = .25, p = .001; 95% CI [.12, .53]) and age (OR = 2.01, p < .001; 95% CI [1.44, 2.83]) were significantly associated with the odds of meeting criteria for a Substance Use Disorder. Therefore, female gender decreased the odds of meeting criteria for a Substance Use Disorder by 75%. Additionally, with every one year increase in age, the odds of meeting criteria for a Substance Use Disorder increased by 101% among African American youth. Everyday discrimination was not significantly associated with the odds of meeting criteria for Substance Use Disorders. Among Caribbean Black youth, age (OR = 2.14, p = .014; 95% CI [1.20, 3.82]) was significantly associated with the odds of meeting criteria for a Substance Use Disorder among Caribbean Black youth. With every one year increase in age, the odds of meeting criteria for a Substance Use Disorder increased by 114% among Caribbean Black youth.

Everyday discrimination and age were not significantly associated with the odds of meeting criteria for Substance Use Disorders for Caribbean Black youth.

Associations between Religious Involvement and Suicide Risk Factors by Ethnicity

Table 1.8 displays outcomes for direct effects between everyday discrimination and suicide risk factors after adding religious involvement to the logistic regression analyses for African American youth. Table 1.9 displays outcomes for direct effects between everyday discrimination and suicide risk factors after adding religious involvement to the logistic regression analyses for Caribbean Black youth. Direct associations between private religious practices, religious (church) support, and organizational religiousness and suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders were assessed separately in African American and Caribbean Black youth. Religious involvement measures were added to logistic regression analyses to identify the associations between religious involvement and suicide risk factors among African American youth (Table 1.8) and Caribbean Black youth (Table 1.9).

Religious Involvement and Suicidal Ideation by Ethnicity. When assessing the direct association between religious involvement (private religious practices, religious (church) support, and organizational religiousness) and suicidal ideation, these predictors were not significantly associated with lower odds of reporting suicidal ideation among African American youth. However, everyday discrimination (OR = 1.08, p = .033; 95% CI [1.01, 1.16]) and age (OR = 1.17, p = .032; 95% CI [1.01, 1.35]) remained significant predictors of suicidal ideation among African American youth. Therefore, with more everyday discrimination exposure and frequency, African American youth were 8% more likely to report having suicidal ideation. Additionally, older age increased the odds of reporting suicidal ideation by 17% (see Table 1.8).

Among Caribbean Black youth, direct associations between religious involvement and suicidal ideation were not significantly associated with lower odds of reporting suicidal ideation. Within this group, however, everyday discrimination (OR = 1.19, p = .009; 95% CI [1.05, 1.35]) and female gender (OR = 8.61, p = .010; 95% CI [1.83, 40.57]) remained significant predictors of suicidal ideation among Caribbean Black youth. Therefore, with more everyday discrimination exposure and frequency, Caribbean Black youth were 19% more likely to report having suicidal ideation. Additionally, female gender increased the odds of reporting suicidal ideation by 761% (see Table 1.9).

Religious Involvement and Major Depressive Disorder by Ethnicity. Religious involvement and major depressive disorder were not significantly associated with lower odds of reporting major depressive disorder among African American youth. However, for these youth everyday discrimination (OR = 1.13, p = .007; 95% CI [1.04, 1.23]) and age (OR = 1.29, p = .021; 95% CI [1.04, 1.60]) was significantly associated with the odds of meeting criteria for Major Depressive Disorder. Therefore, with each unit increase in everyday discrimination exposure and frequency, African American youth were 13% more likely to meet criteria for Major Depressive Disorder. Older age increased the odds of meeting criteria for Major Depressive Disorder by 29% (see Table 1.8).

Among Caribbean Black youth, religious involvement and major depressive disorder were not directly, significantly associated with lower odds of meeting criteria for Major Depressive Disorder. However, everyday discrimination (OR = 1.21, p = .017; 95% CI [1.04, 1.41]) and, by a close margin, female gender (OR = 2.98, p = .053; 95% CI [.99, 9.03]) were significantly associated with the odds of meeting criteria for Major Depressive Disorder for Caribbean Black youth. Therefore, with each unit increase in everyday discrimination exposure

and frequency, Caribbean Black youth were 21% more likely to meet criteria for Major Depressive Disorder. Additionally, among Caribbean youth female gender increased the odds of meeting criteria for Major Depressive Disorder by 198% (see Table 1.9).

Religious Involvement and Generalized Anxiety Disorder by Ethnicity. When assessing the direct association between religious involvement and generalized anxiety disorder, these predictors were not significantly associated with lower odds of reporting generalized anxiety disorder among African American youth. There were no significant associations between religious involvement or any other predictors with regard to meeting criteria for Generalized Anxiety Disorder among African American youth (see Table 1.8). Regarding Caribbean Black youth, there were no Caribbean Black males who met criteria for Generalized Anxiety Disorder, therefore, when stratified by ethnicity, this model only represents associations for Caribbean Black girls. Private Religious Practices (OR = 1.60, p = .002; 95% CI [1.19, 2.14]) and Religious Support (OR = 1.33, p = .029; 95% CI [1.03, 1.73]) were significantly associated with the odds of meeting criteria for a Generalized Anxiety Disorder among Caribbean Black girls. As Caribbean Black girls reported more engagement in private religious practices, the odds of meeting criteria for Generalized Anxiety Disorder increased by 60%. Similarly, as Caribbean Black girls reported higher levels of religious support, the odds of meeting criteria for Generalized Anxiety Disorder increased by 33% (see Table 1.9).

Religious Involvement and Disruptive Behavior Disorders by Ethnicity. When assessing the direct association between religious involvement and disruptive behavior disorders, these predictors were not significantly associated with lower odds of reporting disruptive behavior disorders among African American youth. However, everyday discrimination (OR = 1.08, p = .036; 95% CI [1.01, 1.15]) and age (OR = 1.21, p = .033; 95% CI [1.02, 1.43])

remained significant predictors of the odds of meeting criteria for Disruptive Behavior Disorders for African American youth. Therefore, with increases in everyday discrimination exposure and frequency, African American youth were 8% more likely to meet criteria for Disruptive Behavior Disorders and older age increased the odds of reporting suicidal ideation by 21% (see Table 1.8). Among Caribbean Black youth, direct associations between religious involvement and disruptive behavior disorders were not significantly associated with lower odds of meeting criteria for Disruptive Behavior Disorders. Within this group, however, everyday discrimination (OR = 1.22, p = .002; 95% CI [1.10, 1.38]) was significantly associated with the odds of meeting criteria for Disruptive Behavior Disorders for Caribbean Black youth. Therefore, with more everyday discrimination exposure and frequency, Caribbean Black youth were 22% more likely to meet criteria for Disruptive Behavior Disorders (see Table 1.9).

Religious Involvement and Substance Use Disorders by Ethnicity. When assessing the relation between religious involvement and Substance Use Disorders, Organizational Religiousness (OR = .71, p = .001; 95% CI [.59, .86]) was significantly associated with lower odds of meeting criteria for Substance Use Disorder for African American youth. As African American youth reported more organizational religiousness, the odds of meeting criteria for Substance Use Disorder decreased by 29%. Gender (OR = .28, p = .003; 95% CI [.13, .62]) remained a significant predictor of the odds of meeting criteria for Substance Use Disorders, therefore, female gender decreased the odds of meeting criteria for Substance Use Disorder by 72% among African American youth. Age (OR = 1.96, p = .001; 95% CI [1.36, 2.84]) also remained a significant predictor of the odds of meeting criteria for one or more Substance Use Disorders among African American youth. With every one year increase in age, the odds of African American youth meeting criteria for a Substance Use Disorder increase by 97% (see

Table 1.8). Among Caribbean Black girls, Private Religious Practices (OR = .71, p = .002; 95% CI [.59, .86]) and Religious Support (OR = 1.27, p = .003; 95% CI [1.01, 1.45]) were significantly associated with the odds of meeting criteria for a Substance Use Disorder among Caribbean Black girls. As Caribbean Black girls reported more engagement in private religious practices, the odds of meeting criteria for Substance Use Disorder decreased by 29%. Contrastingly, as Caribbean Black girls reported higher levels of religious support, the odds of meeting criteria for Substance Use Disorder increased by 27%. Age (OR = 2.02, p = .001; 95% CI [1.38, 2.95]) was also a significant predictor of the odds of meeting criteria for one or more Substance Use Disorders among Caribbean Black girls (see Table 1.9).

Moderating Effects of Religious Involvement on Discrimination by Ethnicity

Religious Involvement variables were entered into these models as a moderator to identify the interactions between everyday discrimination and suicide risk factors among African American youth (Table 1.10) and Caribbean Black youth (Table 1.11).

Religious Involvement as a Moderator between Everyday Discrimination and Suicidal Ideation. There were no interaction effects in the associations between everyday discrimination and religious involvement (non-organizational private religious practices, religious support, and organizational religiousness) with suicidal ideation among African American youth (see Table 1.10). Similarly, among Caribbean Black youth, there were no interaction effects in the associations between everyday discrimination and religious involvement with suicidal ideation among Caribbean Black youth (see Table 1.11).

Religious Involvement as a Moderator between Everyday Discrimination and Major

Depressive Disorder. There were no interaction effects in the associations between everyday

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discrimination and religious involvement with Major Depressive Disorder among African American youth (see Table 1.10) or Caribbean Black youth (see Table 1.11).

Religious Involvement as a Moderator between Everyday Discrimination and Generalized Anxiety Disorder. There were no interaction effects in the associations between everyday discrimination and religious involvement with Generalized Anxiety Disorder among African American youth (see Table 1.10) or Caribbean Black youth (see Table 1.11).

Religious Involvement as a Moderator between Everyday Discrimination and Disruptive Behavior Disorders. There were no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders among African American youth (see Table 1.10) or Caribbean Black youth (see Table 1.11).

Religious Involvement as a Moderator between Everyday Discrimination and Substance Use Disorder. There were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder among African American youth (see Table 1.10). Regarding Caribbean Black youth, Private Religious Practices was a moderator of the relation between everyday discrimination and Substance Use Disorder. There was a significant association between the interaction of everyday discrimination and private religious practices (OR = 1.15, p = .050; 95% CI [1.00, 1.32]) on the association between everyday discrimination and Substance Use Disorder. Therefore, as Caribbean Black youth reported being more engaged with private religious practices, the additional odds of meeting criteria for Substance Use Disorder due to exposure to everyday discrimination increased by 15%. Religious Support was also a moderator of the relation between everyday discrimination and Substance Use Disorder among Caribbean Black youth. There was a significant association between the interaction of everyday discrimination and religious support (OR = .85, p = .013;

95% CI [.76, .96]) on the association between everyday discrimination and Substance Use Disorder. Therefore, as Caribbean Black youth reported more religious support, the additional odds of meeting criteria for Substance Use Disorder due to exposure to everyday discrimination decreased by 15%. Organizational Religiousness was also a moderator of the relation between everyday discrimination and Substance Use Disorder. There was a significant association between the interaction of everyday discrimination and organizational religiousness (OR = 1.13, p = .006; 95% CI [1.04, 1.22]) on the association between everyday discrimination and Substance Use Disorder. Therefore, as Caribbean Black youth reported being more engaged with organizational religiousness, the additional odds of meeting criteria for Substance Use Disorder due to exposure to everyday discrimination increased by 13%. Additionally, female gender was also a moderator of the relation between everyday discrimination and Substance Use Disorder. There was a significant association between the interaction of everyday discrimination and gender (OR = .54, p = .007; 95% CI [.35, .83]) on the association between everyday discrimination and Substance Use Disorder. Therefore, Caribbean Black girls who experienced discrimination were 46% less likely than Caribbean Black boys who experienced discrimination to meet criteria for Substance Use Disorder.

Moderating Effects of Religious Involvement on Discrimination by Ethnicity and Gender

Each ethnicity specific model was separated by gender to examine whether there were variations in the associations between religious involvement as a moderator of the relation between everyday discrimination and suicide risk factors within ethnicity groups (Tables 1.12-1.15). Religious involvement variables were entered into the separate ethnicity and gender models as moderators to identify the interactions between everyday discrimination and suicide

risk factors for African American boys, African American girls, Caribbean Black boys, and Caribbean Black girls.

Differences in Religious Involvement as a Moderator between Everyday Discrimination and Suicidal Ideation for African American Youth by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement (non-organizational private religious practices, religious support, and organizational religiousness) with suicidal ideation for African American boys. When examined among African American girls only, organizational religiousness was a moderator of the relation between everyday discrimination and suicidal ideation. There was a marginally significant association between the interaction of everyday discrimination and organizational religiousness (OR = .95, p = .040; 95% CI [.91, 1.00]) on the association between everyday discrimination and suicidal ideation among girls. Therefore, as African American girls reported more organizational religiousness, the additional odds of having experienced suicidal ideation due to exposure to everyday discrimination decreased by 5%.

Discrimination and Major Depressive Disorder for African American Youth by Gender.

There were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for African American boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for African American girls.

Differences in Religious Involvement as a Moderator between Everyday

Discrimination and Generalized Anxiety Disorder for African American Youth by Gender.

There were no interaction effects in the associations between everyday discrimination and

religious involvement with Generalized Anxiety Disorder for African American boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Generalized Anxiety Disorder for African American girls.

Discrimination and Disruptive Behavior Disorders for African American Youth by

Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders for African American boys. There were also no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders for African American girls.

Discrimination and Substance Use Disorder for African American Youth by Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder for African American boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder for African American girls.

Differences in Religious Involvement as a Moderator between Everyday Discrimination and Suicidal Ideation Among Caribbean Black youth by Gender. Among Caribbean Black boys, private religious practices and religious support were moderators of the relation between everyday discrimination and suicidal ideation. There was a significant association between the interaction of everyday discrimination and private religious practices (OR = 1.17, p = .001; 95% CI [1.06, 1.29]) and religious support (OR = .91, p = .010; 95% CI [.85, .98]) on the association between everyday discrimination and suicidal ideation among Caribbean Black boys. Therefore, as Caribbean Black boys reported more private religious

practices, the additional odds of having experienced suicidal ideation due to exposure to everyday discrimination increased by 17%. Additionally, as Caribbean Black boys reported more religious support, the additional odds of having experienced suicidal ideation due to exposure to everyday discrimination decreased by 9%. There were no interaction effects in the associations between everyday discrimination and religious involvement with suicidal ideation for Caribbean Black girls.

Discrimination and Major Depressive Disorder Among Caribbean Black youth by Gender.

There were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for Caribbean Black boys. Similarly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Major Depressive Disorder for Caribbean Black girls.

Differences in Religious Involvement as a Moderator between Everyday

Discrimination and Generalized Anxiety Disorder Among Caribbean Black youth by

Gender. There were no Caribbean Black boys who met criteria for Generalized Anxiety

Disorder therefore there is no model predicting results of this association within this group.

There were no interaction effects in the associations between everyday discrimination and religious involvement with Generalized Anxiety Disorder for Caribbean Black girls.

Differences in Religious Involvement as a Moderator between Everyday

Discrimination and Disruptive Behavior Disorders Among Caribbean Black youth by

Gender. There were no interaction effects in the associations between everyday discrimination and religious involvement with Disruptive Behavior Disorders for Caribbean Black boys. When examined among girls only, private religious practices were a moderator of the relation between

everyday discrimination and Disruptive Behavior Disorders. There was a significant association between the interaction of everyday discrimination and private religious practices (OR = 1.06, p = .044; 95% CI [1.00, 1.12]) on the association between everyday discrimination and Disruptive Behavior Disorders among girls. Therefore, as Caribbean Black girls reported more engagement with private religious practices, the additional odds of meeting criteria for Disruptive Behavior Disorders due to exposure to everyday discrimination increased by 6%.

Differences in Religious Involvement as a Moderator between Everyday Discrimination and Substance Use Disorder Among Caribbean Black youth by Gender. Among Caribbean Black boys, private religious practices and religious support were moderators of the relation between everyday discrimination and Substance Use Disorder. There was a significant association between the interaction of everyday discrimination and private religious practices (OR = 1.31, p = .042; 95% CI [1.09, 1.70]) and religious support (OR = .80, p = .012; 95% CI [.68, .95]) on the association between everyday discrimination and substance use disorder among Caribbean Black boys. Therefore, as Caribbean Black boys reported more private religious practices, the additional odds of meeting criteria for substance use disorder due to exposure to everyday discrimination increased by 31%. Additionally, as Caribbean Black boys reported more religious support, the additional odds of meeting criteria for substance use disorder due to exposure to everyday discrimination decreased by 20%. Contrastingly, there were no interaction effects in the associations between everyday discrimination and religious involvement with Substance Use Disorder for Caribbean Black girls.

#### Discussion

This study aimed to identify how religious involvement protects against suicide risk in the lives of Black youth who experience everyday discrimination. Findings for this study extend the

literature on the role of religious involvement with relation to suicide risk in a compensatory risk and resilience model among Black youth by providing nuanced information about the ways that religious involvement is both positively and negatively associated with suicide risk factors among African American and Caribbean Black boys and girls.

Specifically, the first aim of this study was to examine the relation between everyday discrimination and suicide risk factors, including suicidal ideation, Major Depressive Disorder, Generalized Anxiety Disorder, Disruptive Behavior Disorders, and Substance Use Disorders among a nationally representative sample of Black youth. Results indicated that everyday discrimination was positively associated with Black youths' suicide risk factors. Everyday discrimination was associated with higher odds of having suicidal ideation, and meeting criteria for Major Depressive Disorder and Disruptive Behavior Disorders. Discrimination has been linked to factors associated with suicide risk in myriad empirical studies (Assari et al., 2017; Brody et al., 2006; Molock, 2013; Pachter et al., 2017; Smith-Bynum, Lambert, English, & Ialongo, 2014, Butler-Barnes et al., 2016; Rose, Joe, Shields, & Caldwell, 2014). The negative impact of everyday discrimination is especially troubling given its persistent and recurrent nature. Related to this, and equally troubling, is that everyday discrimination is related to diagnosable mental health conditions, which have lasting negative implications for youth. The findings of this study are in line with previous findings that discrimination is associated with negative mental health symptoms (Seaton, Caldwell, Sellers, & Jackson, 2008; Lewis, Cogburn, & Williams, 2015), including recent findings among African American and Caribbean Black youth (Assari et al., 2017; Pachter at al., 2017). Findings from this study establish an interesting gap in these relations in that everyday discrimination was negatively linked to mental health symptoms in previous studies (Butler-Barnes et al., 2016), but not to diagnostic criteria for the

same illnesses in the present study. Therefore, this study may be highlighting one specific relation within the broader context of the negative associations between everyday discrimination experiences and Black youths' mental health.

Another possible way to understand these findings is that the present study examined everyday discrimination, rather than a specific form or discrimination (e.g. based on race, gender, sexual orientation, etc.), which allowed for a broader understanding of youths' discrimination experiences. The subtle nature of everyday discrimination experiences is particularly troubling, as youth may question whether they have in fact experienced discrimination, and to what they should attribute this experience. Findings from this study show that when youth do experience everyday discrimination, but also have religious social support they are less likely to meet criteria for anxiety. This association seems to reflect that when Black youth feel supported by individuals in their religious community, their ability to discuss these subtle, yet impactful experiences with trusted others, leaves them less likely to spend time ruminating or worrying about these negative discrimination experiences. In this way, religious support is protective against anxiety-related negative effects of discrimination, and thus fits within the framework of the compensatory risk and resilience model. The same finding was not true for other forms of religious involvement and psychiatric disorder outcomes, however future research should continue to examine these relations among Black youth, with specific forms of discrimination and with sub clinical forms of distress.

Further, the use and validation of CIDI criteria among Black youth remains limited (Assari & Caldwell, 2017; Joe et al., 2009). This lack of validation suggests that the forms of distress displayed by Black youth may not be accurately reflected in the DSM diagnostic criteria, which raises concerns about the ability to identify when Black youth are struggling and how best

to support them. The present study continues to extend the current literature that examines mental health outcomes using DSM diagnostic disorder criteria in a nationally representative sample of Black youth. This study and previous studies by Seaton and colleagues (2008) and Lewis and colleagues (2015) provide important information about Black youths' experiences with criteria specific mental disorders. While these linear relations have been established, it is also important to continue extending this body of work by incorporating more longitudinal studies that can help establish directionality in these relations. The present associations could also be explained by a proclivity of youth who suffer from mental health disorders to report a great number of, and more frequent, discrimination experiences. In order to clarify the directionality of these relations, research must continue to move forward with more longer term longitudinal designs as well as various forms of data. For example, future ecologically valid prospective studies could include continued assessments of youths' experiences over multiple years. Further, studies could collect various types of data, including both qualitative and quantitative youth self-report, parent report, teacher report, and observational data. These types of data will contribute to a robust study of youths' lives and experiences and potentially identify places at which to intervene to help improve youths' experiences, prevent excessive psychological distress, and improve their emotional health. Alternatively, future studies that move toward dimensional understandings of symptoms and impairment might better capture nuances in distress and related behaviors. This move from diagnostic criteria to a dimensional perspective might also aid in providing targeted support for specific challenges youth experience.

A second aim of this study was to identify how religious involvement, including private religious practices, religious support, and organizational religiousness influenced the relations between everyday discrimination and suicide risk factors. Results indicated that private religious

practices and organizational religiousness did not moderate the relation between discrimination and SI, Major Depressive Disorder, Generalized Anxiety Disorder, Disruptive Behavior Disorders, and Substance Use Disorders. Religious (church-based) support did not moderate the relation between suicidal ideation, Major Depressive Disorder, Disruptive Behavior Disorders, and Substance Use Disorders; however, religious (church-based) support moderated the relation between discrimination and Generalized Anxiety Disorder. Empirical evidence also points towards the positive impact of religious attendance and participation among Black youth (Riggins, McNeal, & Herndon, 2008; Rose, Joe, Shields, & Caldwell, 2014; Gooden & McMahon, 2016). Service attendance and participation exist as two of many distinct forms of religious involvement. Previous literature suggests that these forms of religious involvement show promise in helping Black youth manage stressful situations (Cook, 2000). Though this was only the case for the relation between organizational religiousness in the context of suicidal ideation among girls in the present study, one explanation is that youth who have experienced stressful situations, such as discrimination may garner support from other, secular avenues, such as involvement in school activities such as academic clubs or sports teams, or other forms of religious involvement, such as religious coping (Molock, 2013). These findings might also be understood in context, given that attending and participating in religious service may not directly address distress or discomfort caused by experiences of everyday discrimination. Instead, perhaps organizational religiousness serves to bolster other forms of support, such as helping to develop or strengthen supportive relationships by increasing engagement with other religious group members. This explanation suggests a potential mediation effect of organizational religiousness—especially for girls, as observed in this study—which should be examined in future research. The moderation effects identified in the current study suggests that among Black youth who find themselves in the context of discrimination, having a supportive religious community can buffer, and therefore decrease the odds of meeting criteria for Generalized Anxiety Disorder. Additionally, moderation effects identified in this study suggest that among Black girls who experience discrimination, attending religious services and events, can buffer, and therefore decrease the likelihood of suicidal ideation. These relations should also be considered in context, yet they provide evidence in concordance with Gooden and McMahon's (2016) empirical findings that Black youth who report supportive religious communities also report higher levels of thriving. Additionally, the findings of the present study are also consistent with previous findings that indicate religious social support is associated with salubrious effects against psychiatric disorders among Black youth. These findings suggest that religious communities offer support for Black youth. For example, for Black youth within Christian traditions, religious support might exist within a context where youth are taught that Jesus said "Come to Me, all you who labor and are heavy laden, and I will give you rest" (Matthew 11:28, NKJV)<sup>2</sup> and reminded that they should "Be anxious for nothing, but in everything by prayer and supplication, with thanksgiving, let your requests be made known to God; and the peace of God, which surpasses all understanding, will guard your hearts and minds through Christ Jesus" (Philippians 4:6-7) (Holy Bible, New King James version, 1982). If youth have supportive communities within religious institutions that use Biblical texts as anchors for helping youth make sense of their problems, then youth might in fact draw additional benefit from support within the context of these shared community beliefs and values, the benefits of this support can lead to positive mental health outcomes.

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<sup>&</sup>lt;sup>2</sup> All scripture quotations are taken from the *New King James Version (NKJV)* unless otherwise noted.

Alternatively, the fact that the interaction between discrimination and religious support was only significantly associated with Generalized Anxiety Disorder raises questions regarding the null effects of the same interaction on Major Depressive Disorder, another internalizing disorder examined in this study, and one more commonly associated with suicide risk (Brent et al., 1993; Wilkinson et al., 2011). It is clear that religious involvement can provide supportive environments for some youth. In addition to previous literature, some findings from this study confirm this, as girls identify the protective nature of being involved with religious organizations through attending meetings and events, against suicidal ideation. However, it is also the case that not all youth have positive experiences in religious settings. Some religious traditions and institutions expressly forbid suicide (Gearing & Lizardi, 2009), and may avoid conversations about suicide and mental health in general (Hedman, 2016). These omissions may result in a broad spectrum of outcomes including, at best, a lack of awareness and at worst, disapproval, stigma, or disowning of individuals who experience mental health concerns. Stigma may lead to a lack of acknowledgement of difficulties and internalization of negative messages and perhaps beliefs about personal weakness or spiritual inadequacy that may further problematize individuals' already challenging experiences. For example, Black youth within Christian traditions might be reminded to "Confess your trespasses to one another, and pray for one another, that you may be healed. The effective, fervent prayer of a righteous man avails much" (James 5:16) (Holy Bible, New King James version, 1982). Encouraging individuals to pray away mental illness may have detrimental effects on health, and stigmatizing mental health and suicide may have dire impacts on youth who are already struggling with mental health problems.

Likewise, lesbian, gay, and bisexual youth experience high levels of discrimination and related psychiatric disorders (McLaughlin, Hatzenbuehler, & Keyes, 2010). At the same time,

religious institutions can be made into places of vitriol and disapproval for gender non-conforming youth and youth who identify as sexual minorities, given some religions' beliefs about intolerance regarding homosexuality (Page, Lindahl, & Malik, 2013). For example, given their sexual orientation, youth may be expected to pray away their sins. Therefore, religious support might in fact exacerbate the negative mental health outcomes of lesbian, gay, and bisexual youth, especially when youth are associated with religious or spiritual traditions that espouse disapproving messages about sexual minorities (Page, Lindahl, & Malik, 2013) and when family and friends accept these messages (Shilo & Savaya, 2012). The current study did not examine the complexities around religious involvement and sexual orientation, however, there is much to be done to further understand the experiences of youth who identify as religious or spiritual as well gay, lesbian, or bisexual.

A third aim of this study was to identify whether the relations between discrimination, religious involvement, and suicide risk factors differ by gender. Results indicated that gender was not a moderator of the relations between everyday discrimination and suicidal ideation, Major Depressive Disorder, Generalized Anxiety Disorder, Disruptive Behavior Disorders, and Substance Use Disorders. When examined separately by gender, private religious practices and religious support did not moderate the relation between suicidal ideation, Major Depressive Disorder, Disruptive Behavior Disorders, and Substance Use Disorders for girls or boys. Similarly, organizational religiousness did not moderate the relation between Major Depressive Disorder, Disruptive Behavior Disorders, and Substance Use Disorders for girls or boys; however, organizational religiousness moderated the relation between discrimination and suicidal ideation for girls. When girls reported a high frequency and intensity of discrimination and had more organizational religiousness, they had higher odds of having reported suicidal

ideation. Though unexpected, the significant association of organizational religiousness in the context of discrimination for girls is a promising step in the process of better understanding which aspects of religious involvement youth find protective, and how this may differ based on youths' personal characteristics and experiences. One explanation for this finding may be that girls' increased engagement in religious organizations leads to more experiences with discrimination, perhaps among their peers. Previous research identifies associations between religious discrimination and mental health outcomes among Muslim Americans (Rippey & Newman, 2007). Though religious affiliations of the youth in the present study are not established, it may be the case that young girls who are highly active within their religious communities face persecution from peers, and have subsequently had thoughts of suicide. Another possible explanation for this finding may be that respondents' experiences of discrimination are associated with gender, and may occur in the context of their engagement in religious contexts. Given that youths' attribution of everyday discrimination experiences were not assessed in these analyses, it is possible that because of their gender, females are tasked with more responsibilities within the context of religious organizational engagement, yet not entrusted with equitable levels of leadership or power within those religious organizational space—also because of their gender (Lehman, 2002; McCluney, 2017). Despite their youth, girls in this study may be impacted by the mismatch between others' expectations of them and subsequent acknowledgment, or lack thereof, of their work.

The influence of gender on both discrimination and mental health outcomes has been documented in previous studies (Butler-Barnes et al., 2016; Rose, Joe, & Lindsey, 2011). While there were gender differences in direct associations of the likelihood of females reporting suicidal ideation and Substance Use Disorder, as it was measured, gender only produced a

significant association with regards to girls' organizational religiousness and its influence on suicidal ideation. Some of these findings are consistent with a recent study that did not identify gender differences in the positive role of religious support for Black youth (Hope et al., 2017). Findings from the present study suggest that though boys and girls report experiencing significantly different levels of discrimination and religious involvement, these experiences are not differentially associated with their suicide risk in the context of most outcomes examined in this study. One explanation for the lack of associations identified with other forms of religious involvement could be related to the measurement of discrimination experiences that Black boys and girls experience. Given the measure of everyday discrimination, it could be that boys and girls have similar experience but attribute these experiences to different social identities. Also, Black boys and girls, may not be at the same developmental level, such that girls, who often experience faster maturation and development than boys (Bramen et al., 2011), might be more likely to identify and label experiences as discrimination. Alternatively, girls might be more likely to utilize coping skills when they do experience discrimination experience, even if they do not identify them as such. Additionally, the dichotomous measure of gender in this study is limiting for youth who may identify as gender non-conforming. The present study does not account for the specific role religious involvement might play in the lives of these youth. This acknowledgement of the interplay between youths' gender identity, religious and spiritual lives, and mental health is extremely important and should be examined in detail in future studies.

A fourth aim of this study was to examine whether the relations between discrimination, religious involvement, and suicide risk factors differ by ethnicity. Results indicated that private religious practices, religious support, and organizational religiousness did not moderate the relation between discrimination and SI, Major Depressive Disorder, Generalized Anxiety

Disorder, Disruptive Behavior Disorders, and Substance Use Disorders among African American youth. Similarly, private religious practices, religious support, and organizational religiousness did not moderate the relation between discrimination and SI, Major Depressive Disorder, Generalized Anxiety Disorder, and Disruptive Behavior Disorders among Caribbean Black youth. However, private religious practices, religious support, and organizational religiousness did moderate the relations between discrimination and Substance Use Disorders among Caribbean Black youth. Analyses examining moderating effects of discrimination and religious involvement by ethnicity revealed, in some instances, a differing pattern of results for African American youth as compared to Caribbean Black youth. With regard to substance use, there were no significant interactions for African Americans. Contrastingly, Caribbean Black youth who were exposed to everyday discrimination, and who reported engagement in private religious practices and organizational religiousness, were more likely to report struggling with Substance Use Disorder. This relation is likely counter to the expected purpose of religious involvement and engagement in religious activities and events. However, when these youth were exposed to everyday discrimination, greater religious support was associated with decreased risk of struggling with Substance Use Disorder. These mixed findings suggest nuanced differences in the ways youth experience interactions within the context of religious involvement. It may be the case that Caribbean Black youth who are experiencing discrimination or mental health challenges become more involved in their religious institutions; however outcomes are dependent on the type of engagement. It may be the case that when Caribbean Black youth seek support from individuals they know and trust, they are encouraged to participate in more adaptive coping strategies. However, when youth attempt to handle these situations on their own, or increase attendance in surface level activities without making connections, they are more

susceptible to potentially adapting maladaptive coping strategies such as substance abuse. As surmised in previous literature among adults (Chatters et al., 2011), the may be exacerbated by the potential for youth who are already having difficulty coping may be engaged in substance use, then turning to their faith or religious activities for support in an already troubling situation. It may also be the case that Caribbean Black youth encounter forms of discrimination in the U.S. that are different from forms of discrimination that they might have encountered in their home contexts. Their parents and families may also be unaccustomed to the forms of bias that come with life in the U.S. These youth may not readily utilize the same language to describe these newer forms of discrimination, and many may not have had the opportunities or the supports needed to make meaning of these new forms of bias, or to develop effective skills to cope with them. Youth who have fewer resources to make meaning of and cope with new forms of discrimination may be particularly vulnerable to isolation and to experiencing poor mental health outcomes, and may opt for strategies of coping such as substance abuse. For these youth the contact that comes with church support might be especially vital for protecting against poor outcomes.

Overall, these findings currently exist within a small body of literature that examines the role of religious involvement among Caribbean Black youth (Assari et al., 2017; Butler-Barnes et al., 2016; Hope et al., 2017). Though limited in its ability to provide details about the quality of personal relationships within Caribbean Black youths' religious communities, this study adds to the current body of literature. Findings draw attention to the distinct relations between differing forms and levels of religious involvement for Caribbean Black youth. Even more nuanced studies of the nature of these personal relationships within the lives of Caribbean Black youth will helpful in clarifying the nature, strength, and direction of these associations.

Additionally, findings identified differences by gender within ethnicity groups. Results indicated organizational religiousness moderated the relation between discrimination and suicidal ideation for African American girls, but not African American boys. Among Caribbean Black youth, private religious practice and religious support moderated the relation between discrimination and suicidal ideation and Substance Use Disorder among Caribbean Black boys, but not Caribbean Black girls; however, private religious practices moderated the relation between discrimination and Disruptive Behavior Disorder among Caribbean Black girls, but not Caribbean Black boys. When examined separately by ethnicity and gender, results reveal that African American girls who experienced everyday discrimination and reported having organizational religiousness had higher odds of having experienced suicidal ideation. This was not true for any other group (African American boys or Caribbean Black boys and girls). However, among Caribbean Black boys, those who had experienced everyday discrimination and also reported engaging in more private religious practices tended to report a higher likelihood of experiencing suicidal ideation. Yet Caribbean Black boys who had experienced everyday discrimination and also reported having religious support, were at decreased risk of having experienced suicidal ideation. These findings may be reflective of youths' gendered and racialized experiences with religious institutions and within society. If considering the intersectionality of Black youths' lives and experiences (Cole, 2009), we might expect some differences by group. For example, gendered expectations of religious involvement may influence youths' opportunities, experiences, and expectations. Women are often more involved in religious life than men; it is possible that young girls are held to this expectation as well. In this case, girls' higher reports of organizational involvement may be most reflective of these expectancies rather than their reported state of mental health and wellness as it relates to their

engagement in religious life. That is, young girls may have high levels of engagement in their religious communities by virtue of their gender role expectations, and also still struggle with mental health concerns such as suicidal ideation, as indicated by these findings. Additionally, young boys may be less likely to identify role models of their same gender within their religious communities given that the gender most well represented in religious spaces is women.

Considering findings within this context, it may be the case that the supportive relationships boys establish within religious communities are more impactful than praying or meditating alone.

Perhaps the quality of these relationships does more to buffer against boys' thoughts of suicide when private religious practices on their own cannot.

A range of ethnic and gender differences arose with regard to other suicide risk factors. Caribbean Black girls who experienced discrimination and also indicated engagement in private religious practices had an increased likelihood of meeting criteria for Disruptive Behavior Disorders. Whereas, among Caribbean Black boys, those who reported more engagement with private religious practices and had experienced discrimination had increased likelihood of meeting criteria for Substance Use Disorder. However, among Caribbean Black boys, having religious support was associated with a decreased likelihood of meeting criteria for Substance Use Disorder. Again, it is the explicitly relational dimension of religious involvement that proved to be especially important as a protective force for boys. These disparate associations by gender and ethnicity offer some information, and simultaneously raise additional questions about the aspects of youths' personal and religious lives that may provide insight into these findings. For instance, it will be important to learn details about how youth engage with religious practices privately; what are the religious messages of which youth remind themselves during their private studies, and how are these messages impacting their ability to express frustrations and engage in

healthy coping strategies? Further, what is the nature of the supportive relationships boys experience in their religious communities, and with whom are these boys connecting? Such questions serve to guide future exploration. Knowing more about how youths' experiences differ will provide information and insight into ways to support ethnically diverse youth. These findings are similar to a recent study identifying religious support as an important buffering factor for psychiatric health outcomes (Hope et al., 2017) and add to the growing body of literature examining suicide risk factors and religious involvement among African American and Caribbean Black youth.

Utilizing a risk and resilience framework privileges a strengths-based approach to this indepth examination of a potential protective factor for African American and Caribbean Black youth. These findings point to ways in which different domains of religious involvement might be helpful for preserving the mental health of diasporic youth. Paying closer attention to the intricacies of relationships within youths' religious contexts may prove useful. Whether youth experience relationships that are substantive and meaningful within their religious communities, or whether they experience relationships that are shallow and superficial, or confrontational, challenging, or supportive may determine their level of comfort in sharing negative experiences and identifying harmful or protective outlets through which to engage. Despite a tendency of social scientists and perhaps interventionists to assume all forms of religious involvement variables will have a uniformly positively association with suicide risk factors, the findings of this study demonstrate that different manifestations of religiosity may have quite different effects on the well being of girls, boys, African American and Black Caribbean youth. These results provide support both for and against the role of religious involvement as a protective factor

against suicide risk in the lives of African American and Caribbean Black youth, complicating the story, and raising additional questions for future study.

### Limitations

Examining the importance of religious involvement on the relation between discrimination and suicidal ideation, Major Depressive Disorder, Generalized Anxiety Disorder, Disruptive Behavior Disorders, and Substance Use Disorders in a nationally representative sample of Black youth is an important step in advancing the literature around these topics. As is the nature of empirical studies, though, this examination is not without limitations. While there are studies that utilize CIDI criteria to examine national level data (Kessler et al., 2012; Nock et al., 2013) few studies examining the validation of the CIDI criteria among Black youth (Joe et al., 2009). Such validation would provide insight into the nuances of Black youths' experiences and strengthen the ability to make claims about the prevalence of psychiatric disorders and correlates of suicide among Black youth. Additionally, the measure of religious involvement used in the study is robust, and one that captures many dimensions of religious life. However, given the complexity of religiosity and spirituality, both methodologically, and in practice, the examination of religious involvement may not have fully captured all important elements of youths' religious life (Mattis et al., 2006).

Future studies should in fact broaden this conceptualization of religious involvement in order to appreciate its full impact in youths' lives, especially in relation to Black youth, and youth of different cultural backgrounds, and their mental health outcomes. For example, current conceptualizations and ways of measuring religiosity and spirituality do not necessarily account for the ways in which different cultural groups might understand youths' spirituality as innate (Mattis et al., 2006). As is true with any attempts to measure phenomena within the human

experience, our current assumptions within the field of religion and spirituality impact measurement of these constructs. Therefore, in-depth qualitative examinations of various cultures' understanding of youths' spiritual and religious positions are required for improved understanding of the relations between religion and spirituality and suicide risk. Relatedly, this study did not examine differences by religious faith or denomination. Such a distinction might be an important factor to consider regarding messages youth may receive in their places of worship that may influence their vulnerability to suicide. More detailed examinations of the distinctions between specific religions' positions on mental health in general would extend the scope of the extant literature.

Any lifetime experience of suicidal ideation in this study was measured using a one item measure of suicidal ideation. Though this measure has been utilized in previous studies (Assari et al., 2012), a measure of suicidal ideation severity might have provided more information about suicide risk among youth in this study. The present analyses also excluded measures of non-suicidal self-injury and suicidal behavior. A focus on these important suicide risk factors would provide additional information about youths' level of risk, as well as potential associations between these risk factors and religious involvement. Relatedly, psychiatric disorder symptoms were self-reported by youth and did not include parent reports of youths' behaviors. Previous studies indicate discrepancies in parent and youth reports of youths' mental health and behavior (Achenbach, McConaughy, & Howell, 1987; De Los Reyes & Kazdin, 2005; De Los Reyes & Ohannessian, 2016; Franklin et al., 2017). Including parent reports is an important consideration for future studies in an effort to gather additional information about youths' behavior and functioning.

The present analyses also did not include Intermittent Explosive Disorder in the measure of Disruptive Behavior Disorders. Though Intermittent Explosive Disorder may be associated with suicidal ideation and behavior, studies report only a 1-2% prevalence in adolescent populations (Olvera, 2002). Additionally, Intermittent Explosive Disorder is highly comorbid with other psychiatric disorders, including mood, anxiety, and disruptive behavior disorders, and substance use disorders (Kessler et al., 2006; Olvera, 2002). Using data from a national level study, Kessler and colleagues (2006) report that 81.8% of individuals who met criteria for having Intermittent Explosive Disorder at any point in their lives, also met criteria or at least one other lifetime disorder. These finding suggest that although Intermittent Explosive Disorder was not assessed as an disruptive behavior disorder, youth who met criteria for Intermittent Explosive Disorder in the NSAL were likely accounted for among those who met criteria for other lifetime disorders that were assessed.

Relatedly, the use of DSM criteria to examine the mental health of Black youth may lead researcher to miss sub-clinical forms of internalizing and externalizing behaviors that are associated with experiences of discrimination among Black youth. The strict criteria for these disorders does not account for responses to experiencing discrimination, where youth might display depressogenic, anxious, impulsive, or substance using behaviors that do not meet criteria, yet are impairing in youths' lives. If this is the case for Black youth, then it will be important to consider including additional measures of psychological health that could capture more sub threshold concerns related to Black youths' mental health. For examples, alternative quantitative measures could take a dimensional approach, but utilizing dimensional scales of mental health constructs. Such quantitative measures would be helpful to identify and examine levels of hope and hopelessness, future goal orientation, or quality of life and engagement. Alternatively, these

relations could have been assessed qualitatively. Though this quantitative study provides a robust view of Black youth, broadly, it does not allow for an in-depth examination and analysis of situations which these youth experience and the tools they utilize in their daily lives to support their development amidst adversity. Specifically, a qualitative study would have provided some grounding for youths' experiences using their own words, leading to a better understanding of the influence discrimination has on their lives, as well as the everyday factors they utilize to navigate through these experiences. Examples of such positive factors might be supportive relationships with friends, family, or religious communities; school; music; sports or activities; or video games. Future studies must provide youth with opportunities to guide the exploration of various phenomena in their lives and lay the groundwork for subsequent conversations about and examinations of these phenomena.

Finally, although this study utilized a diverse sample of African American and Caribbean Black youth, and these analyses account for ethnicity, the lack of knowledge regarding the suicide risk and protective factors for Black youth calls for extensive in-depth examinations of various facets of Black youths' identities and lives. An examination of differences by ethnicity is an important and substantial undertaking. It is one that requires and deserves a thorough examination of the existing literature, and thoughtful analysis and interpretation, beyond simply utilizing it as a spurious factor to eliminate for simplicity. Rather than separating African American and Caribbean Black youth, or relegating ethnicity to a controlled factor in the present analyses, this dissertation conducted all analyses with the entire sample as a means of providing the initial foundation for future study of religious involvement and suicide risk among of Black youth at risk for suicide. Further, this dissertation examined these same associations by group, providing exploratory analyses for African Americans and Caribbean Blacks separate from each

other. This is an initial step in parsing out variations by ethnicity. Future research should extend this work by examining variation in these relations by ethnicity beyond African American and Caribbean Black, for example including African-born Black youth. Additional information regarding immigration and generational status would also provide important context regarding youths' important perspectives of discrimination in the context of the United States.

#### Future Directions

Continued study of the role religious involvement on youths' suicide risk, particularly in the context of stress is important. For example, learning that religious support can positively impact youths' mental health when faced with discrimination is an important first step in the study of these relations. However, religious support can take many forms—emotional, tangible, informational, instrumental—therefore examining the mechanisms by which this religious support influences youths' experiences during challenging situations will be important for future research. Importantly, these influences might be positive or negative, and future work must explore either possibility, along with the attitudes and beliefs of youth and their support communities. Qualitative methods are well suited to provide in depth examinations of specific questions about youths' experiences in religious settings; youths' interactions with adults and peers in religious settings; and youths' understanding, interpretation, internalization, and embodiment of religious teachings in these settings. In the alternative, qualitative methods would also identify youths' lack of understanding, interpretation, internalization, and embodiment of religious teachings, or the rejection of these. Therefore, future research should utilize qualitative methods to improve understanding of the role of religious support, and other factors, in Black youths' lives. Additionally, including diverse sample of Black youth, as in this nationally representation sample, and gaining better qualitative understandings of how youth form their

religious identities will provide context to these and future findings. Specifically, a focus on potential difference by ethnicity may be important, given that religiosity and spirituality are cultural (Halgunseth, Jensen, Sakuma, & McHale, 2016). For example, individuals who identify with the same religious tradition, such as Christianity, may still emphasize important differences in the beliefs and practice of that shared tradition, for example, based on denominational differences (e.g. Catholicism, Protestantism).

As such, future research should continue to examine the nuances of religious involvement, paying specific attention to differences in youths' faith traditions. Even within Christianity, there exists a range of attitudes and beliefs about what is acceptable, appropriate, and valued between Catholics and Protestants; the nuances continue within Protestant traditions between Episcopalians, Methodists, and Baptists, for example (Gearing & Lizardi, 2009). Additionally, considering the specific attitudes and beliefs of Islam, Judaism, Hinduism, Buddhism, and other religious traditions raises additional questions, solidifying the need for additional study regarding whether and how these religions discuss mental health and intervene when youth experience mental health problems. Another interesting point of future study is how youth became involved in their religious communities. Some Black youth are socialized into their family's religious traditions, whereas others choose their traditions based on their own personal beliefs (Butler-Barnes et al., 2017). How and at what stage in their lives youth came to their religious beliefs that might influence their reliance on religious teachings in the face of stressors, and in addressing mental health problems. On the one hand, youth who were socialized into their religious beliefs from their parents and continue in those traditions out of respect or obligation might not report any influence of religious involvement in times of struggle. However, the converse might also be true; if youth have known and believed in their religious teachings for as long as they can remember, religious institutions may be some of the first places they turn for help. In this case, the response youth receive will likely have a very important impact, and could push youth closer to or further away from their established system of beliefs. Likewise, if a young person is introduced to and later adopts religious beliefs on his own accord, he might be more likely to turn to this community in times of struggle. However, in this case the converse might also be true; that this same youth may instead turn first to a more established coping mechanism if important others in his life lack a connection to his newly identified religious tradition. Each of these questions is an opportunity for future study to learn more about the role of religious involvement in the lives of Black youth.

Increased suicide rates among Black youth remain astonishing. Continually identifying ways to interrogate this phenomenon and intervene, with a focus on protective factors can bolster support systems for youth will be an important next step both in terms of advancing this science and keeping youth safe and well nurtured.

# Chapter IV

# Study Two: Longitudinal Study of the Impact of Religious Involvement on Depression and Suicidal Ideation Among Black Youth With Interpersonal Problems

There are various factors that place youth at risk for engaging in suicide-related behaviors. For example, some youth report experiencing suicidal thoughts and behaviors; engaging in non-suicidal self-injury; psychopathology including depression, anxiety, aggressive behaviors, alcohol/drug use; and social relational factors such as having interpersonal problems, specifically low social connectedness, bully victimization, bully perpetration, or victim-perpetrators. Youth who experience these social relational factors are at increased risk of experiencing internalizing problems such as depression and suicidal ideation (Garber, 2006; King & Merchant, 2008). Therefore, it is important to examine factors associated with depression and suicide among Black youth with interpersonal problems to identify modifiable targets for preventive intervention strategies.

# **Suicide Risk Factors Among Black Youth**

Previous research has identified primary risk factors for suicide and suicide attempts, such as suicidal ideation and non-suicidal self-injury (Brent et al., 1993; Horwitz et al., 2015; Lewinsohn et al., 1994). Additionally, mood disorders are strong contributors to suicide risk, as roughly 90% and 96% of youth who experience suicidal ideation and who make an attempt, respectively, also meet criteria for at least one psychiatric disorder (Nock et al., 2013; Bridge et al., 2006; Wilkinson et al., 2011). Importantly, nation level data report that 9% of Black youth

experienced a major depressive episode in the past year (NSDUH, 2016; NIMH, 2016). These risk factors are important to consider in the context of Black youths' suicide risk.

In addition to primary risk factors, experiences with interpersonal problems, such as bully perpetration, bully victimization, and low social connectedness, are also common among youth and associated with depression and suicidal ideation among Black youth (Espelage & Holt, 2013; King & Merchant, 2008; Klomek et al., 2013). Victimization is an interpersonal challenge that often occurs in the context of peer relationships and may increase during adolescence. Youth who experience interpersonal problems such as victimization—either as a bully victim, bully perpetrator, or both— are at increased risk for depression and suicidal ideation (Espelage & Holt, 2013; Gini & Espelage, 2014; King & Merchant, 2008; Klomek et al., 2013). In a study of 661 middle school students, Espelage and Holt (2013) found that those who reported involvement in victimization also reported more suicidal ideation than their counterparts who were not involved in victimization. A similar study of youth included a two year follow up, at which time those who had previously reported involvement in victimization also reported more severe depression and more severe suicidal ideation than their peers who were not involved in bullying (Klomek et al., 2013). Importantly, relational risk factors for suicide among youth go beyond peer victimization. Previous scholarship suggests that youth who are both bully victims and bully perpetrators are often at highest risk for suicide-related behaviors, as compared to youth who only report bully victimization (Copeland, Wolke, Angold, & Costello, 2013; Kim, Koh, & Leventhal, 2005; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Mayes et al., 2014). These findings provide evidence for the importance of studying relational risk factors, such as victimization, as they increase suicide risk among youth.

Another relational risk factor that increases youths' suicide risk is low social connectedness, or not feeling close to or supported by important individuals or groups, such as youths' families, schools, or communities (King, Gipson, & Opperman, 2015; Stone, Luo, Lippy, & McIntosh, 2015). Scholars have documented the association between youths' lack of social connectedness and suicide risk (Garber, 2006; King & Merchant, 2008). Previous research regarding the longitudinal influence of interpersonal difficulties on suicide risk found that experiencing interpersonal difficulties in middle adolescence is associated with reporting suicidal behaviors in late adolescence and early adulthood (Johnson et al., 2002). Some youth also experience interpersonal difficulties such as social isolation, which researchers have found is associated with an increased likelihood of experiencing suicidal thoughts (Bearman & Moody, 2004; Joiner, 2007). Additionally, youth who report low levels of connectedness in school and with their families were also more likely to report having suicidal thoughts than their counterparts who do not report having low connectedness (Kaminski et al., 2010). Taken together these findings suggest the importance of examining youths' experiences in the context of relational risk factors such as involvement in bullying—as bully victims, bully perpetrators, or both— or low social connectedness, in order to have a clearer understanding of suicide risk among this population.

Involvement in Victimization and Low Social Connectedness among Black Youth. Few studies have examined victimization among large samples of Black youth. In one such study conducted among 1,526 low income Black youth, those who reported involvement in bully victimization had higher odds of reporting depressive symptoms and suicidal ideation than did youth who do not report involvement in bully victimization (Fitzpatrick et al., 2008). Youth who reported involvement as victims, perpetrators, or victim-perpetrators also reported higher levels

of depressive symptoms than those who were not involved in victimization (Fitzpatrick et al., 2010).

Among low income Black youth, experiences with family violence and negative peer relationships were associated with increased odds of youths' involvement in bullying (Fitzpatrick, Dulin, & Piko, 2007). In another sample of urban, inner-city African American and Hispanic children, victimization was associated with depressive symptoms, social avoidance, and loneliness (Storch et al., 2003). These findings among low-income or inner city Black youth raise similar concerns about the increased suicide risk and suggest the need for further examination. Intra-group examination provides opportunities to identify individual within-race differences, along with the ability to identify factors that can protect Black youth in the face of difficult interpersonal challenges. Much like these interpersonal or relational risk factors, Black youth likely also have experience with suicide protective factors that represent their relational experiences with family or important others.

## **Suicide Protective Factors Among Black Youth**

Social institutions such as family, school, and religion can be protective for youth who are at elevated risk for depression and suicidal ideation (Borowsky et al., 2001; Pearce et al., 2003; Rose et al., 2014). Family and school connectedness are known interpersonal protective factors against depression and suicidal ideation for youth experiencing interpersonal problems (Brausch & Gutierrez, 2010; Loukas & Pasch, 2012). Some evidence suggests that particular dimensions of religious involvement may function as unique protective factors against depressive symptoms and suicidal ideation over and above the impact of school and parent-family connectedness among youth with interpersonal problems (Cole-Lewis et al., 2016; Greening & Stoppelbein, 2002). This dissertation will examine the protective influence of

religious involvement against suicide risk among Black adolescents', selected for increased risk of suicide due to relational problems, after six months.

Scholars have found that religion/spirituality is more important for females, when compared to males (Greening & Stoppelbein, 2002; Joe, 2006; Rew & Wong, 2006). However additional study of these potential gender difference in religious involvement in relation to suicide risk among Black youth who report relational problems can expand the current literature on the role of religious involvement in suicide risk. Additionally, a previous study indicated a negative association between religious involvement and suicidal ideation; however, the ability to determine temporality is limited by the cross-sectional design of the study (Cole-Lewis et al., 2016). Exploring these associations over time can provide more evidence of the association between religious involvement and depressive symptoms and suicidal ideation among youth who struggle interpersonally.

Importantly, a previous study highlights the importance of family and school connectedness (Foster et al., 2017). In this study examining various forms of connectedness among 224 youth, ages 12-15 years old who were at elevated risk for suicide, the authors report that youth who reported feeling connected to their parents and their school, also reported lower levels of suicide risk factors, such as depressive symptoms and suicidal ideation (Foster et al., 2017). Another study among a similar sample of youth at elevated risk for suicide identified that youth's simultaneous reports of greater perceived burdensomeness along with low family connectedness were associated with greater severity of suicidal ideation (Opperman, Czyz, Gipson, & King, 2015). These studies highlight the importance of connectedness to family and school for youth at elevated risk of suicide, and identify known protective factors that these youth may employ. The present prospective study will extend this work in an effort to identify

additional protective factors for Black youth at elevated risk for suicide. Specifically, this study will explore whether private religious practices, religious support, and organizational religiousness reduce the risk of depressive symptoms and suicidal ideation among Black youth with interpersonal problems after six months. Additionally, this study will examine how these relationships differ by gender.

Previous research indicates that within Black populations, religiosity and spirituality have been associated with positive mental health outcomes, including lower depression and suicidal ideation (Greening & Stoppelbein, 2002; Pearce et al., 2003; Rose et al., 2014; Walker & Bishop, 2005). Studies examining these relations have evidenced strong associations within Black adult populations. There are few studies that explore these relations among Black youth. Youth are often socialized around religiosity and spirituality within their families, therefore, youth endorsement of religious or spiritual beliefs are often heavily influenced by their families' beliefs or non-beliefs (Butler-Barnes et al., 2017; Mattis & Mattis, 2011). Furthermore, historically, religiosity and spirituality are cultural phenomenon within the Black community. Situated within the context of the United States' cultural history of slavery, religiosity and spirituality have long been woven into the lives of Blacks, largely as a source of strength in the midst of seemingly impossible circumstances (Long, 1971; Mattis et al., 2004; Nelson, 1997). Therefore, it is important to consider the influence these important cultural factors play in the lives of youth struggling with interpersonal problem.

Extant literature suggests Black youths' experiences of interpersonal problems leads to higher rates of depressive symptoms and suicidal ideation, and that the extent to which interpersonal problems lead to poor mental health outcomes may vary by youths' religious involvement (Cole-Lewis et al., 2016; Rose et al., 2014). A previous study examined the relation

between religious involvement and suicide risk among youth who have interpersonal problems, defined as low social connectedness or involvement in bullying (victimization and/or perpetration), and are therefore at high risk for suicide (Cole-Lewis et al., 2016). The authors report that among adolescents who are at elevated risk for suicide, religious involvement was associated with lower depressive symptoms and less suicidal ideation (Cole-Lewis et al., 2016). However this previous work only explored these relations at one time-point, and therefore cannot establish causality. Additionally, this previous study was not specific to Black youth (55% African American), rather examined these associations among all youth who reported interpersonal problems (Cole-Lewis et al., 2016). Adolescence is an important developmental period for youth (Eccles et al., 1993). It is a time marked by transition and identity negotiation, especially among Black youth, given their minority status within the U.S. Therefore, it is important to examine the extent to which religion and spiritualty influence depression and suicidal ideation among Black youth who report involvement in bullying at such a critical developmental stage as adolescence. This study extends previous research by conducting a prospective examination of Black youths' religious involvement and its relation to depression and suicidal ideation. When youth are at high risk for suicide, present level of risk is assessed regularly within clinical settings, given the fluidity of emotionality and related risk, especially among adolescents. Examining how religious involvement is associated with suicide risk across a six-month period will provide information about how religious involvement relates to suicide risk over time. Examining suicide risk after a six-month time period broadens our understanding of the influence religion and spiritualty have on mental health among Black youth with interpersonal problems.

## **Specific Aims**

The specific aims of this study are to prospectively examine aspects of religious involvement, specifically, private religious practices, religious support, and organizational religiousness to identify their impact on depressive symptoms and suicidal ideation among Black youth with interpersonal problems. The first study aim is to prospectively examine the relations between religious involvement and depressive symptoms and suicidal ideation among Black youth. Looking across six months, this study will assess the relation between private religious practices, religious support, and organizational religiousness and depressive symptoms and suicidal ideation among Black youth who experience interpersonal problems. This study will control for baseline depressive symptoms and suicidal ideation. Given that the original sample is drawn from an intervention study, these analyses will also control for the effect of the intervention. I hypothesize that religious involvement will be inversely associated with depressive symptoms and suicidal ideation among Black youth experiencing interpersonal problems. Given that Black youth tend to engage with religion in personal and individualistic ways (Pearce et al., 2013). A second study aim is to examine gender differences in the relation between religious involvement and its prospective associations with depression and suicidal ideation among Black youth with interpersonal problems. I hypothesize that religious involvement will be more protective for Black females than for Black males.

**Aim 2.1:** The first study aim is to longitudinally examine the relation between religious involvement and depressive symptoms and suicidal ideation over a six month time period in a sample of Black youth, ages 12-15, with self-reported interpersonal problems. The current study will assess three aspects of religious involvement (private religious practices, organizational religiousness, and church-based support). Hypothesis 2.1: I hypothesize that

religious involvement will be inversely associated with depressive symptoms and suicidal ideation among Black youth experiencing interpersonal problems.

**Aim 2.2:** A second study aim is to examine gender differences in the relation between religious involvement and its longitudinal associations with depressive symptoms and suicidal ideation among Black youth who report interpersonal problems. Hypothesis 2.2: I hypothesize that religious involvement will be more protective for Black females than for Black males.

### Methods

# **Participants**

This study's sample is comprised of a subset of the youth (*N*=117) who participated in the LET's CONNECT study, a CDC-funded preventive intervention community-based effectiveness trial for youth at elevated risk for suicide due to peer victimization, bullying perpetration, or low social connectedness (King, Gipson, & Opperman, 2015). This preventive intervention consisted of youth who reported involvement in victimization—victims, perpetrators, victim-perpetrators—and/or who reported low social connectedness. Data for this study were collected at baseline, and again six months later. Youth who presented to an urban pediatric emergency department or urgent care clinic in the Midwestern region of the United States for a wide range of presenting concerns were approached to assess interest in the study.

Once eligible youth were identified, and their parents consented to their participation in in the LET's CONNECT study, youth were screened for study eligibility. Inclusion criteria for randomization into the intervention or control group included a positive screen for bully perpetration, peer victimization, and/or low social connectedness. Exclusion criteria included residence outside the target study area, a previous suicide attempt, presenting with a life-

threatening condition, participation in another research study at the hospital, having a sibling enrolled in the current research study, residence in a juvenile detention or residential treatment facility, severe cognitive impairment, youth or legal guardian unable to speak or read English, having a legal guardian who is deaf, or being in police custody. An additional inclusion criteria for this dissertation study included youth reported race. This study sample only includes youth who self-identified as Black or African American.

Participants in this study sample included 117 youth, 78 females and 39 males (M=13.5, SD = 1.1). A majority (82%) of the participating families received some form of public assistance. On average, 27% of mothers and 54% of fathers had completed high school and 46% of mother and 19% of fathers had completed some college or technical school. Analyses are based on the sample of youth who completed baseline and follow-up questionnaires at both the baseline and at the follow up time points. Follow up was conducted six months after the initial evaluation to assess functioning.

#### **Procedure**

Institutional Review Board approval was obtained for this study. Following signed legal guardian consent and youth assent, the youth measures were administered to the participants in the emergency department (ED) or urgent care settings or in the youth's homes within one week of the ED visit. If participants had difficulty reading or completing the forms, assistance was available from study staff members. The questionnaires required approximately 60 minutes to complete. As an incentive for completion of the screening phase, caregivers and youth each selected a small dollar store item and the youth received a carabineer with the study logo. Youth who screened positive and completed the baseline measures were provided compensation of \$25 for completion of baseline measures. Follow up assessments were conducted six months later in

participants' homes or at a local meeting place. Youth who completed six-month assessment measures were provided compensation of \$25.

#### Measures

**Peer Experiences Questionnaire.** The Peer Experiences Questionnaire measures bully victimization and bully perpetration (Prinstein, Boergers, & Vernberg, 2001; Vernberg, Jacobs, & Hershberger, 1999). Both the bully victimization subscale and the bully perpetration subscale of the Peer Experiences Questionnaire are a 9-item self-report measure that assesses youths' experiences of relational and overt aggressive behaviors with peers over the previous four months. The bully victimization scale asks respondents to indicate whether experiences of relational or overt aggression have happened to them; the bully perpetration scale asks respondents if they have engaged in these relational or overt aggressive behaviors against others. Sample items include "Teased in a mean way," "Left out of something you wanted to do," and "Hit, kicked, or pushed in a mean way." Items are rated on a 5-point scale that ranges from *never* to several times a week. Items were summed and scores ranged from 9 to 45. A positive screen was identified as a cut-off score of 19 for males and 17 for females. Cut-off scores were set at one standard deviation above the mean for each subscale based on a previous large scale community based study of adolescents (Vernberg, Jacobs, & Hershberger, 1999). The Peer Experiences Questionnaire demonstrated high reliability in this sample, Cronbach's  $\alpha$ =.90.

**Suicidal Ideation Questionnaire- Junior.** Suicidal ideation was measured using the Suicidal Ideation Questionnaire- Junior (SIQ-JR; Reynolds, 1987). The SIQ-JR is a 15-item self-report measure that assesses the frequency of suicidal thoughts using a 7-point scale. Responses range from *I never had this thought (0)* to *almost every day (6)*. Sample items include "I thought about death," "I thought about killing myself," "I thought about how I would kill myself," "I

thought when I would kill myself." The SIQ-JR is a widely used measure that demonstrates high reliability in this sample, Cronbach's  $\alpha$ =.90, and has been supported as a criterion-valid measure of suicidal ideation (Reynolds & Mazza, 1999). Scores range from 0 to 90, with a clinically concerning cut off score of 31. For the present study, scores were divided into three groups—high (12+), medium (1-11), or low/no (0) suicidal ideation severity due to zero inflation of this outcome (see Table 2.1).

Reynolds Adolescent Depression Scale: Short Form. The Reynolds Adolescent Depression Scale: Short Form (RADS-2:SF; Reynolds & Mazza, 1998) was used to measure depressive symptoms. The RADS-2:SF is a 10-item self-report measure developed to assess the severity of depressive symptoms in adolescents. Items are rated on a 4-point scale that ranges from *almost never* (0) to *most of the time* (4). Scores range from 10 to 40, and a score greater than 23 suggest clinically concerning symptoms. Sample items included "I feel lonely," and "I feel like nothing I do helps anymore." The RADS-2:SF is a widely used measure that demonstrates high reliability in this sample, Cronbach's  $\alpha$ =.83, and has been supported as a criterion-valid measure of depressive symptomatology (Reynolds & Mazza, 1998).

Brief Multidimensional Measure of Religiousness/Spirituality. The Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS; Abeles et al., 1999; Fetzer, 2003) was used to measure religious and spiritual practices, preferences, and supports. Three subscales were used to assess religious practices: Private Religious Practices, Religious (Church-Based) Support, and Organizational Religiousness. A sample of a Private Religious Practices item is "How often do you pray alone in places other than at church?" Most items were assessed on an 8-point Likert-type scale ranging from more than once a day (1) to never (8). A sample of a Religious Support item is "If you had a problem, how much comfort would the

people in your church give you?" Items were assessed on a 4-point Likert-type scale ranging from a great deal (1) to never (4). A sample of an Organizational Religiousness item is "How often do you go to faith-based events?" Items were assessed on a 6-point Likert-type scale ranging from more than once a week (1) to never (8). The BMMRS demonstrated high reliability in this sample, Chronbach's  $\alpha = .81$ , and has demonstrated good construct validity (Harris et al., 2008; Masters et al., 2009).

## **Statistical Analyses**

Descriptive statistics were computed for the primary study variables. Correlational analyses were conducted to examine bivariate associations between primary study variables at baseline and 6-month follow-up. The first study aim is to examine the prospective impact that religious involvement, defined as private religious practices, organizational religiousness, and church-based support, has on Black youths' depression and suicidal ideation across a six-month time period. I hypothesize that private religious practices, religious support, and organizational religiousness will each be inversely related to depressive symptoms and suicidal ideation for Black youth who are involved with victimization (victim, perpetrator, or victim-perpetrator) and/or who report low connectedness. I also hypothesize that private religious practices will have the strongest influence on depressive symptoms and suicidal ideation. In order to test these hypotheses, a multivariate linear regression analysis was conducted to examine the predictive value of religious involvement on depression and suicidal ideation. The first regression model examined the relation between baseline religious involvement (private religious practices, religious support, and organizational religiousness) on depression at the second evaluation, conducted six months after the initial assessment. A related regression model regression model examined the relation between baseline religious involvement (private religious practices,

religious support, and organizational religiousness assessed at baseline) on suicidal ideation at the second evaluation, conducted six months after the initial assessment. These models will include depression during the initial evaluation as a covariate.

A second study aim is to examine differences in each of these relations by gender. I hypothesize that the impact of private religious practices, religious support, and organizational religiousness on depressive symptoms and suicidal ideation for Black youth who have interpersonal problems will be stronger for Black females than for Black males. In order to test this hypothesis, gender was added to regression models as an interaction term to examine its moderation effects on the relation between religious involvement and depressive symptom and suicidal ideation. In the first model, gender was added as an interaction term to a linear regression model examining the relation between private religious practices (private religious practices x gender), religious support (religious support x gender), and organizational religiousness (organizational religiousness x gender) and depressive symptoms to identify the differences between the associations of religious involvement and depressive symptoms for females and males. In the second model, gender was added as an interaction term to an ordinal regression model examining the relation between private religious practices (private religious practices x gender), religious support (religious support x gender), and organizational religiousness (organizational religiousness x gender) and suicidal ideation to identify the differences between the associations of religious involvement and suicidal ideation for females and males. These models included baseline depression severity and participation in the community-based connectedness intervention as covariates.

#### Results

#### **Descriptive Statistics**

Table 2.1 presents descriptive statistics for all primary study variables. At baseline, 132 youth (42 boys and 90 girls) participated in this study, however, at six months, this number decreased to 97 youth (31 boys and 66 girls). Girls in this sample were older than boys t(130) = 2.29, p = .024) and reported higher levels of baseline suicidal ideation F(1,130) = 17.22, p < .001 and suicidal ideation at six months F(1,95) = 9.95, p = .02. Girls also reported higher baseline depressive symptoms t(130) = 5.56, p < .001) and depressive symptoms at six months t(95) = 3.97, p < .001) than males. There were no gender differences among other primary study variables.

## **Correlations among Primary Study Variables**

Table 2.2 presents bivariate correlations among primary study variables for all youth in the sample. Among boys and girls, age was positively correlated with baseline suicidal ideation, baseline depression severity, and six-month depression severity. Age was negatively correlated with both private religious practices and organizational religiousness. Gender was negatively correlated with baseline and six month suicidal ideation as well as baseline and six month depression severity. Baseline suicidal ideation was significantly positively correlated with suicidal ideation at six months as well as depression severity at baseline and at six months. Suicidal ideation at six months was significantly positively correlated with baseline and six month depression severity. Baseline depression severity was significantly positively correlated with depression severity at six months and significantly negatively correlated with religious support at baseline. Baseline private religious practices was significantly positively correlated with baseline organizational religiousness. There were no other significant correlations. Expected significant negative correlations between baseline measures of religious involvement, specifically, private religious practices and baseline organizational religiousness, with six month

measures of depression severity and suicidal ideation were not present. Similarly, the expected significant negative correlation between religious support and six month suicidal ideation was also not present.

Table 2.3 presents bivariate correlations among primary study variables in the sample by gender. Among girls in the sample, age was significantly positively correlated with depression severity at six months. Intervention participation was significantly associated with baseline private religious practices. Baseline suicidal ideation was significantly positively associated with suicidal ideation at six months and baseline and six month depression severity. Suicidal ideation at six months was positively correlated with depression severity at baseline and at six months. Baseline depressive symptoms was significantly positively correlated with depression severity at six months. Finally, baseline private religious practices were significantly positively associated with baseline organizational religiousness. Among boys in the sample, age was significantly negatively correlated with baseline organizational religiousness. Intervention participation was significantly negatively associated with baseline religious support. Baseline suicidal ideation was positively correlated with depression severity at baseline and at six months. Baseline depression severity was significantly positively associated with depressive symptoms at six months and significantly negatively associated with baseline religious support. Finally, baseline private religious practices was significantly positively correlated with organizational religiousness.

## **Linear Regression**

Hierarchical linear regression analyses were conducted (see Tables 2.4 and 2.6) to examine associations of religious involvement with depression severity among all youth in the sample. Each model controlled for gender, age, whether the family received public assistance, and whether the youth was randomized into the intervention group. Each model also accounted

for known protective factors of school and parent-family connectedness. Linear regression models for depressive symptoms at six months controlled for baseline depression severity. Baseline depression severity ( $\beta$  = .39, p = .001) was predictive of depression severity six months later. Baseline private religious practices, religious support, and organizational religiousness were not significant independent predictors of lower depression severity at six months (Table 2.4). Being a recipient of public assistance ( $\beta$  = -3.24, p = .028) was predictive of lower depression severity. School connectedness ( $\beta$  = -.25, p = .048) was also predictive of lower depression severity. Table 2.6 displays results for associations between religious involvement and depression severity six months later, and also examines interaction terms. Baseline depression severity ( $\beta$  = .41, p = .001) remained predictive of depression severity six months later. There were no significant interaction effects for gender on the relation between primary study variables and depression severity (Table 2.6). Receipt of public assistance ( $\beta$  = -3.21, p = .027), parent-family connectedness ( $\beta$  = -.15, p = .051), and school connectedness ( $\beta$  = -.25, p = .052) were all associated with reporting lower depression severity at six months.

## **Ordinal Logistic Regression**

Ordinal logistic regression analyses were conducted (see Tables 2.5 and 2.7) to examine associations of religious involvement with suicidal ideation among all youth in the sample. Each model controlled for gender, age, whether the family received public assistance, and whether the youth was randomized into the intervention group. Each model also accounted for known protective factors of school and parent-family connectedness. Ordinal logistic regression models for suicidal ideation severity at six months (0 = none, 1 = 1-11, 2 = 12+) controlled for baseline suicidal ideation severity as well as depression severity at baseline and six months. Baseline depressive symptoms (OR = 1.17, p = .017; 95% CI [1.03, 1.35]) were significantly associated

with suicidal ideation at six months, such that with each level of increased baseline depression severity, the odds of a participant being in a higher severity suicidal ideation group (medium or high levels compared to low/no ideation) at six months increased by 17% when all other variables in the model are held constant. Baseline religious (church-based) support (OR = 1.34, p = .028; 95% CI [1.03, 1.73]) was the only form of religious involvement that was significantly and independently associated with the odds of higher suicidal ideation at six months; however, the relation was positive, and therefore not in the expected direction (Table 2.5). With each level of increase in religious (church-based) support at baseline, the odds of a participant being in a higher severity suicidal ideation group also increased by 34% when all other variables in the model are held constant. Table 2.7 displays results for associations between religious involvement and suicidal ideation six months later, and examines interaction terms. Baseline depression severity (OR = 1.22, p = .007; 95% CI [1.05, 1.42]) remained significantly associated with suicidal ideation at six months, such that with each one unit increase in baseline depression severity, youth had 22% higher odds of being in a higher severity suicidal ideation group at six months when all other variables in the model are held constant. However, there were no significant moderating effects of gender on the relations between the primary study variables and suicidal ideation six months later.

# Moderating Effects of Gender

Gender was entered into these models as a moderator to identify the interaction between religious involvement and gender on suicide risk factors (Tables 2.6 and 2.7). There were no interaction effects in the associations between gender and suicide risk factors.

#### **Discussion**

This study aimed to identify the extent to which religious involvement is negatively associated with suicide risk factors over time in the lives of Black youth involved in victimization and/or with low social connectedness. In particular, the first aim of this study was to examine the association between religious involvement on Black youths' suicide risk factors, including depression severity and suicidal ideation, after six months. Results indicate that among Black youth who have been involved in victimization, there is no prospective relation between religious involvement and the suicide risk factors measured in this study. Private religious practices, religious (church) support, and organizational religiousness at baseline were not associated with depression severity six months later. Similarly, private religious practices and organizational religiousness at baseline were not associated with suicidal ideation six months later. Contrary to expectation, religious (church) support at baseline was positively associated to suicidal ideation at six months. Religious (church) support at baseline prospectively predicted higher odds of reporting more severe suicidal ideation six months later.

Utilizing a risk and resilience framework provided a strengths-based approach that advanced knowledge about the role of contexts and relationships in religious settings that could attenuate Black youths' suicide risk. Youth who experience interpersonal problems are at elevated risk for suicide. Examining religious involvement as a promotive factor within the risk and resilience framework provides ways to think about the study results. However, these relations were not supported in the present study. In fact, the positive association between religious support and suicidal ideation was surprising. These results are in contrast with those of some previous studies that found religious involvement to be negatively associated with suicide risk (Nonnemaker, McNeely, & Blum, 2003; Walker & Bishop, 2005).

Religious involvement— specifically, private religious practices, religious support, and organizational religiousness—has been inversely linked to poor mental health outcomes such as depression and suicidal ideation in previous empirical studies (Nkansah-Amankra et al., 2012; Davidson & Wingate, 2011; Nonnemaker, McNeely, & Blum, 2003; Molock et al., 2007; Sinha, Cnaan, & Gelles, 2007). Involvement in religious communities and support from church members can provide fulfilling relationships for Black youth (Hope et al., 2017); this may be true regardless of youths' social connection to other peers. Additionally, support from religious communities may be a natural extension of family support and connectedness, especially among Black youth, as religion is a cornerstone within many Black communities (Hardie, Pearce, & Denton, 2016). Organizational religiousness can provide positive places to engage with these supportive relationships, especially when these are context-specific and rooted within a faith-based community.

The results of the present study did not reflect these findings; rather they are more similar to some other findings, in which religiosity (as measured by frequency of religious activity attendance) was not directly associated with suicidal ideation among White American and Ghanaian college students (Eshun, 2003). Eshun (2003) reported that although there was no direct relation between religiosity and suicidal ideation, this relation was mediated by college students' negative attitudes about suicide. Specifically, they found that religiosity was positively related to negative attitudes about suicide, and negative attitudes about suicide were negatively related to suicidal ideation (Eshun, 2003). These findings suggest the need for additional examination of potential mediating factors in the relation between religious involvement and suicide risk. Factors such as negative attitudes about suicide, as identified by Eshun (2003) appear to influence youths' suicide risk. Other factors that could play similar mediating roles in

youths' suicide risk include previous experience with suicide within their families or religious communities, as well as religious socialization messages youth receive through their religious institutions. If youth have personal experience with losing a family member or friend within their religious communities to suicide, they may have had opportunities to form their own opinions about suicide based on these difficult experiences. Additionally, the manner in which a religious community responds to a suicide of members would likely influence youths' thoughts, opinions, beliefs, and feelings about suicide, and whether or not it appears to be a viable option in the midst of their own pain.

Interestingly, in a previous study which utilized a larger sample of youth (multiple races) from the LET's CONNECT intervention study, Cole-Lewis and colleagues (2016) observed direct associations at baseline between private religious practices and lower levels of depression and suicidal ideation, religious support and lower levels of depressive symptoms, and organizational religiousness and lower levels of suicidal ideation among youth with interpersonal problems. However, the same relations were not observed over time in this subsample of Black youth with interpersonal problems. One possible explanation for these findings is that controlling for baseline levels of religious support effectively accounted for the protective strength of religious involvement against suicide risk factors. It is possible that the positive effects that religious involvement can have on depression and suicidal ideation are observed at a single time point, rather than over a short period of time such as six months. Related to this, known protective factors of school and family connectedness were included in these analyses, given their proven impact on suicide risk factors among youth (Foster et al., 2017; Greening & Stoppelbein, 2002; Opperman et al., 2015). Perhaps the inclusion of these factors accounted for the positive effects of family socialization and support for the youth in this study. In previous

study, the associations of religious involvement were apparent above and beyond the role of connectedness (Cole-Lewis et al., 2016), however, it could be that this effect is only apparent using a snapshot view, and does not represent a noticeable effect over a short time span (e.g. six months). Longitudinal studies examining these factors, both in relation to each other, and in their associations with depression and suicidal ideation will help advance the field and improve current the understanding of their protective role in youths' lives.

Another possible explanation for findings that religious involvement is unrelated to suicide risk over time is that although religion is often a part of youths' lives from an early stage (Halgunseth, Jensen, Sakuma, & McHale, 2015; Sinha, Cnaan, & Gelles, 2007), youth may become less connected with their familial religious beliefs during adolescence (Hardie, Pearce, & Denton, 2016). During adolescence, a time of exploration, as some youth are distancing themselves from familial relationships, they might also attempt to distance themselves from associated religious-affiliated relationships (Hardie et al., 2016; Nkansah-Amankra et al., 2012). It may be that this distancing relation is observable over the six-month time period examined in this study. Therefore, in the present study, the lack of support for an inverse longitudinal association between private religious practices, organizational religiousness, and suicide risk factors might be a result of adolescents becoming more disconnected from their families and family-related activities during this developmental period. If youth are becoming disconnected or attempting to disconnect from their families and their families' religious beliefs, then religious involvement might not be associated with positive outcomes, and instead might even be associated with negative feelings, emotions, and outcomes.

In understanding the pattern of results for religious involvement and its link to suicidal ideation, Molock and colleagues (2006) and Molock and colleagues (2008) argued that religious

participation had important buffering effects for suicide risk, and suggested that church based community interventions could likely be effective for Black youth. Religious involvement has been identified as a potential intervention focus for suicide prevention among Black youth (Molock et al., 2008). However, these factors did not appear to be effective as buffers for Black youth who experience victimization. Pearce and colleagues (2013) reported that Black youth tend to be adapters, or individuals who would be likely to consider themselves spiritual but not religious, pray often, report variable service attendance, and hold somewhat pluralistic views of religion. Thus one explanation for findings in the present study could be that Black youth may not subscribe to the positivist views of traditional religion that might be more likely to strictly prohibit suicide (Osafo, Knizek, Akotia, & Hjelmeland, 2013). Therefore, religious involvement may not be protective in the way one might expect. This may be especially important in cases where youth experience victimization, as youth may be struggling to make sense of their negative peer experience in relation to messages about both giving and receiving unconditional love and forgiveness.

Another explanation of the positive relation between religious support and suicidal ideation is that youth may experience suicidal ideation despite their engagement in religious settings. Therefore, reliance on their religious support systems could be in response to difficult situations they face, such that as victimization and other stressors become more difficult to manage, youth increase reliance on religious support resources. It follows that the youth who experience the highest risk are also more likely to seek help, and may therefore be more likely to report a more severe health status. Youth in the present study who are struggling the most with suicidal ideation may be more heavily reliant on their supportive religious community to manage their ideation or other psychological concerns. A similar concept has been argued for Black

adults regarding physical and mental health (Levin, Taylor, & Chatters, 1994; Rippentrop, Altmaier, Chen, Found, & Keffala, 2005). As is the case with these youth within a six-month timeframe, perhaps the support resources sought do not subsequently impact the stressors, rather they exist in concert with them. Furthermore, although this study examined relations between religious involvement and suicide risk over time, it is also the case that a six-month timeframe may not be a sufficiently long period in which to observe a change in these relations. It is likely that within six months, youth are still within the contexts where their reported stressors exist. Therefore, it is also possible that the active stressors are maintained, or even exacerbated over the course of six months. In this case, the positive relations between religious support and suicide risk and lack of association between other forms of religious involvement and suicide risk may be related to the inability to account for additional and accumulating risk factors that may exist as youth remain in stressful environments. While these results do not provide support for religious involvement as a promotive factor against suicide risk for Black youth, they do raise important questions for future study. Therefore, future studies should continue to examine these and other potentially promotive relations over extended periods of time.

## Limitations

Examining the longitudinal factors associated with suicide risk among Black youth involved in bullying is an important addition to the literature. Given the nature of empirical research, this study is not without limitations. The current study is a subset of a larger intervention trial focused on a targeted group of youth who were involved in bullying and/or who reported low social connectedness. Such a targeted effort to study these specific youth results in smaller sample sizes. Additionally, given the shared nature of these youths' experiences with negative peer relationships, it is possible that there was limited variability in religious support,

and a limited range of outcomes related to zero inflation of suicidal ideation. These measurement issues may have impacted the ability to identify significant relations between religious involvement and suicide risk. There was less variation in youths' responses of religious support than their reports of private religious practices. Perhaps this limited variability impacted the ability to identify the role of religious support for youth who would have reported more, or less, religious support than the youth in this study. Similarly, youths' reports of organizational religiousness were also less variable than their reports of private religious practices. It may be that these forms of religious involvement are in fact less variable among youth, but it might also be unique to these youth, and perhaps related to their interpersonal challenges. Additionally, many of the youth in this study did not report suicidal ideation, which limited the variability on this outcome. Although youth in this study are at elevated risk for suicide, many of them do not report having had suicidal ideation. This zero inflation led to the creation of three outcome groups (high, medium, and low/none) for suicidal ideation. Perhaps youth in this study are engaged in some form of coping or have protective factors other than those examined in the study that effectively buffer their risk of suicide. As the field continues to learn more about the rising risk of suicide among Black youth, it will be important to continue conducting empirical studies that elucidate protective factors that youth employ.

Additionally, there were limited suicide risk indicators in this study. A more robust measure of suicide risk including an in-depth examination of factors such as hopelessness, previous engagement in violence, or homicide survivorship may have yielded broader analytic abilities due to an increased sample size and a richer consideration of suicide risk. The same is true of the protective factors examined. Religiosity and spirituality can be strong, independent protective factors; however, their protective effects might also be enhanced by other protections,

such as family, school, and community connectedness (King, Gipson, & Opperman, 2015). This study accounted for other potential protections in conjunction with religious involvement, and identified the importance of family and school connectedness. The effects of religious involvement were not observed alongside these known protective factors in this study. Perhaps examination of religious involvement in conjunction with connectedness requires the use of powerful statistical techniques that can identify nuances, such as latent or overlapping values within these constructs.

Similarly, this investigation did not consider the potential differences of beliefs by religious background or denomination. Different religious traditions have different values both in terms of beliefs and participation (Boyatzis, 2012; Mattis, Ahluwalia, Cowie, & Kirkland-Harris, 2006; Taylor, Chatters, & Jackson, 2007). It is important to take into account youths' religious tradition and denominational affiliation, and how it may influence their suicide risk (Colucci & Martin, 2008; Kamal & Lowenthal, 2002). Further, it might be expected that young people in the adolescent phase of life would question traditional teachings and seek to explore their identities and beliefs on their own. Benson, Scales, Syvertsen, and Roehlkepartain (2012) report that across international religious and cultural backgrounds, spiritual development is a dynamic process, just like other forms of development. Especially within the context of religion and spirituality, these explorations might be to the chagrin of parents or others in the youths' religious community, causing stress and contention in relationships that this study assumes to be positive and supportive. Further, Benson and colleagues (2012) report that this spiritual development can, and often does, occur without regular engagement or deep involvement in explicitly religious or spiritual activities. Therefore, the expectation that youth in this stage of life will be heavily engaged in traditional practices associated with religiosity and spirituality might be misguided.

Additionally, some religious traditions are extremely outspoken regarding particular social identities (e.g. homosexuality). If youth identify as gay, lesbian, bisexual, they likely experience stigma, and associated negative mental health outcomes (McLaughlin, Hatzenbuehler, & Keyes, 2010). This is likely true of transgender and other gender non-conforming youth. These negative outcomes are exacerbated when youths' religious traditions, family, and friends are intolerant of their identities (Page et al., 2013; Shilo & Savaya, 2012). The present study did not examine these factors or related associations, which raises the possibility that sexual orientation, gender identity, or other factors that were unaccounted for could be playing important roles in youths' experiences of victimization, religious involvement, and suicide risk.

Additionally, these analyses may also have been more robust given a period longer than six months between the measured time points. Examining these relations prospectively after two or three years may have provided more information and potentially yielded a different pattern of results. Finally, this quantitative study does not account for the potential richness of narratives of Black youth themselves. A qualitative study would provide contextually important information regarding Black youths' understanding and meaning making regarding religious involvement and suicide risk. Future studies should examine these factors qualitatively to provide more information about Black youth suicide risk. Nevertheless, there is value of examining the lives of Black youth as this practice provides information that has previously been limited.

Future Directions

Quantitative and qualitative work to better understand suicide risk among Black youth, with a focus on understanding ways of thinking about suicide among the Black population is limited (Walker, Lester, & Joe 2006). This is especially true regarding adolescents. Therefore, it will be important to extend the scope of research on this topic with additional quantitative studies that examine other potential relations between suicide risk and such constructs as religious coping, as well as more detailed analyses of religious support. Future work should also examine the nuances and complexities of Black youths' religious lives by accounting for factors such as youths' attitudes and beliefs about suicide. Both the nature of these attitudes (e.g. what these attitudes are) as well as how these attitudes emerged would provide context regarding youths' level of risk for suicide, and potentially identify some of the complexities of these youths' experiences. Likewise, the range of experiences youth have in religious settings will vary greatly by individual and it is important to capture the impact of these variations. For example, youth who were socialized in religious settings from childhood may have a different experience and ways of understanding and applying religious beliefs than youth who joined a religious community during adolescence, especially if the latter join these communities during times of crisis. Such factors likely play an important role in the influence of religious involvement on Black youths' suicide risk.

Large scale and longitudinal studies of Black youth would allow researchers to make comparisons across Black youth experiences, and provide valuable information about similarities and differences within this group. Additionally, cultural and societal shifts are influential in shaping youths' experiences as well as their perceptions of themselves and their lives. It will be important to examine and assess how shifts in societal beliefs and expectations about Black

youth, and related environmental changes, influence their experiences with suicide risk specifically, and mental health, generally.

Qualitative methods would also offer unique contributions to the field, given the ability to learn more details about youths' experiences with their religious involvement and suicide risk. Phenomenological research methods such as in-depth interviews would privilege Black youths' experiences by providing insight into how they define, understand, and interpret religious beliefs taught in their places of worship. Interviews could not only learn from youth from various religious traditions and denominations, but could also provide opportunities to examine individual youths' personal experiences with victimization. These conversations would allow researchers to probe youth about whether and how their understanding or internalization of religious beliefs influences their ability to cope with interpersonal problems they experience. Using data from these interviews, researchers could identify common themes and move toward developing theories that can be quantitatively examined in the service of advancing suicide prevention strategies among Black youth. Through the power of privileging Black youths' own voices, qualitative and mixed methods studies would provide context regarding the content of individual practices, supportive relationships, and overall engagement, thus leading to a better understanding of the mechanisms by which religious involvement influences suicide risk among Black youth.

## Chapter V

## **Integrative Discussion and Conclusion**

This dissertation sought to examine the protective and promotive role of religious involvement against suicide risk among Black youth in the context of relational risk factors. In a nationally representative sample of African American and Caribbean Black youth, study one examined whether private religious practices, religious support, and organizational religiousness had a protective effect on the relation between discrimination and suicide risk. Suicide risk was defined as suicidal ideation, depression, anxiety, disruptive behavior disorders, and substance use disorders. Results also identified varying associations by gender and ethnicity. Among all youth, this study indicated that religious support was protective against anxiety when Black youth experienced discrimination. Among girls, organizational religiousness was protective against suicidal ideation when girls experienced discrimination. When Caribbean Black youth experienced discrimination, private religious practices increased their odds of Substance Use Disorder, while religious support and organizational religiousness were protective against Substance Use Disorder. Among African American girls, organizational religiousness was protective against suicidal ideation when African American girls experienced discrimination. Among Caribbean Black boys, private religious practices increased odds of suicidal ideation and Substance Use Disorder when youth experienced discrimination. Alternatively, among Caribbean Black boys, religious support was protective against suicidal ideation and Substance Use Disorder when youth experienced discrimination. Finally, among Caribbean Black girls, private religious practices increased odds of Disruptive Behavior Disorders when youth

experienced discrimination. Study two was conducted utilizing a sample of Black youth at elevated risk for suicide due to involvement in peer victimization and/or low social connectedness. The study prospectively examined whether private religious practices, religious support, and organizational religiousness at an initial time point served as promotive factors against suicide risk six months later. Suicide risk was defined as suicidal ideation and depression severity. Results from this study indicate that religious involvement at baseline was not significantly associated with depression severity, however, religious support at baseline was significantly associated with reporting higher odds of suicidal ideation six months later. These complex and seemingly disparate findings regarding religious involvement in the two studies described above may be associated with a range of conceptual, theoretical, and methodological factors.

## **Conceptual and Theoretical Considerations**

Victimization, low social connectedness, and discrimination remain significant stressors for Black youth. Though private religious practices, religious (church-based) support, and organizational religiousness can be protective, findings from these studies do not unilaterally confirm their role as buffers against the negative effects of victimization, low social connectedness, and discrimination. Within the context of these relational risk factors, religious involvement proves to be both a supportive outlet for some youth, as well as a source stress for other youth. Given the complexities of these relations, the questions posed in these studies warrant further investigation. Black youth have a lived experience that exists within the context of a racialized society. This experience may be unique because of youths' (or their parents') country of origin. This experience is also unique because it is in this context that Black youth are expected to experience growth and development into adulthood. Stressors associated with

development warrant a necessity to identify means of supporting youth, as this can be essential to their positive development. Continued research such as these dissertation studies that focuses on individual, interpersonal, and community strengths that characterize Black youths' daily contexts is one way to do this.

Importantly, religious involvement is a factor that has been identified as protective for Black adults, and more recently, Black youth. Continued examination of this empirical question is essential to gaining a better understanding of the mechanisms by which religious involvement operates in youths' lives. The present studies assessed these questions in a group of victimized and/or socially disconnected youth, as well as in a nationally representative study of Black youth. Given the associations identified in both studies, which often varied by youths' personal characteristics, it may be the case that Black youth have different perceptions about religious involvement, suggesting a need for an in depth qualitative and quantitative examination of religion in the lives of Black youth. Additional information about Black youths' religious meaning making, as well as how Black youth see themselves in relation to their religious beliefs can provide insight into its protective or non-protective role.

Though the Brief Multidimensional Measure of Religion and Spirituality (BMMRS) utilized in both studies is a robust measure, it does not distinctly identify domains of religiosity versus spirituality. Instead, this measure assumes that spirituality is displayed through individualled acts, like prayer, that are meant to draw a person nearer to his or her Higher Power. This assumption conflates the constructs, as by definition, prayer is an act of religion, and not necessarily a distinct representation of spirituality. This reflects spiritualty as an abstract concept (Mattis, 2000; Mattis & Mattis, 2011; Zinnbauer et al., 1997; Zinnbauer, Pargament, & Scott, 1999), thus one that young children may have difficulty fully grasping, both in terms of current

measurement strategies, and in regard to the development of concrete versus abstract thought. Relatedly, religiosity can be an enactment of spiritual beliefs (Mattis, 2000; Mattis & Mattis, 2011; Zinnbauer et al., 1997; Zinnbauer, Pargament, & Scott, 1999), whether fully understood or not. Engagement in religious acts may in fact be the enactment of spiritual beliefs for youth who cannot yet fully articulate their spiritual convictions. Still there may be aspects of spirituality in which youth engage that are not fully captured here. Moving forward, researchers should consider these developmental factors in assessing youth religiosity and spirituality. Age and developmental stage were not a primary focus of these dissertation studies, and were therefore beyond the scope of this work. However, future studies should consider grouping youth to identify the potential role of developmental differences in these relations between religious involvement and suicide risk among Black youth (Kub & Solari-Twadell, 2013; Joe et al., 2009).

As Boyatzis (2012) argues, assessment of children's spirituality should take a social ecological perspective. If spirituality is innate, socialized and shaped by experiences (religious and non-religious), and characterized by a relationship that exists beyond the self (Boyatzis, 2012), then it represents a dynamic process for youth who are actively engaged in self-definition. Tools that attempt to measure such a dynamic process should be reflective of this; they must also strongly consider the importance of the cultural socialization of spirituality. That is, recognizing that there may exist differences by cultural tradition, and thus, for example, recognize that an examination of the spiritual development of Black youth will require examination of specific traditions of Black spiritual and religious life, rather than a universal measure of adolescent spiritual development (Mattis et al., 2006). Measures of Black youth spirituality should incorporate a range of different indicators that might better reflect how a young person prioritizes his/her religious spiritual beliefs. For example, such measures might ask youth about whether or

how often they: "say grace" or ask God to bless their food before they eat; ask others to pray for them during times of stress; offer to pray for others as a sign of concern and support; listen to religious music; wear "witness wear" or clothing, jewelry, or body markings (e.g. tattoos); attend Vacation Bible School; or attend "small group" or Bible study meetings. Such activities and are more youth specific acts that may provide better insight youths' religious and spiritual lives.

In addition to examining ways of thinking about religion and spirituality among youth, it is important to examine the concept of connectedness and time with regard to youth's lives. Increasingly youth lives in a digital world and their experiences and relationships will reflect this. It will be important to continue evolving our examination of connectedness and the ways in which youth connect with their family and friends. This is true for positive connectedness, as well as negative connectedness. With the rise of cyber-bullying (Wang, Iannotti, & Nansel, 2009), youth have limited options for escaping victimization. These factors must be considered in future work that examines youths' interpersonal experiences, as well as the time frame in which events happen in youths' lives. Victimization experiences or feelings of social disconnectedness can occur and persist, such that observable changes in suicide risk or other psychological distress factors may not appear until after stressors have been alleviated or removed. If youth remain in the same contexts in which the stressors exist, it is unlikely that they will experience relief from these burdens. Future work should examine longitudinal relations that might exist after a year or more, as this extended time frame increases the likelihood that youth have moved on to different settings, that are perhaps less stressful or have a more supportive atmosphere. Future work should also consider implementing digital and mobile technology strategies to examine, assess, and provide support for youth. Online and mobile phone applications might aid in assessing risks and outcomes in real time by using algorithms and other

emerging technologies (Franklin et al., 2017). Researchers can utilize advancements in technologies to reach youth, who often have experiences connecting with friends and peers using these methods.

It is also important to acknowledge that youth exist within the cultural context of their family lives. Discussions about religion and spirituality might take place within the home, with parents and with siblings, or with family members of a similar age (e.g. cousins). These discussions are inevitable shaped by the individuals taking part, as well as their family background, history, and cultural contexts. Measurement intended to examine adolescents' religiosity and spirituality should assess parent-child and family conversation, as research suggests that these are important aspects of youth religious and spiritual socialization (Boyatzis, 2012; Boyatzis & Janicki, 2003). Likewise, the transaction between youth and peers is likely important to examine. Though values are largely transmitted initially through parent-child interactions, youth might continue these conversations with peers, especially in parochial schools (Boyatzis, 2012; Wallace et al., 2007a). It would be important to continue examining these relationships to identify whether and how youth employ their religious and spiritual beliefs when engaging with peers. Additionally, an area that is relatively understudied regarding youth religious and spiritual development is sibling relationships. Religious and spiritual socialization through sibling relationships seems a natural extension of transactional parental discourse, however, this area of exploration has been largely left unexamined. Like peer interactions, youth relationships with siblings are likely where youth express and explore their ideas, confusions, and wanderings about the nature of their lives and the world. These relationships, which are potential safe spaces for youth to question, challenge, defend, and come to peace with their curiosities about religion and spirituality, seem like natural and fertile ground for youths'

religious and spiritual development. Researchers should consider developing tools to examine these relationships both qualitatively and quantitatively. Examining these relations qualitatively would provide opportunities for nuanced examinations of youths' social ecology.

Another important part of youths' social ecology is their family experience with mental health. Youth could come from any constellation of familial mental health backgrounds, ranging from no one in their families having experience with psychological distress, to being well versed in problems associated with psychiatric illness. Also included in that range of experiences is having experience with psychiatric illness that family members refuse to admit or acknowledge. Given this quite broad range, youth may come to research studies with any number of preconceived notions, shaped by experience, about mental health. It is important to acknowledge and account for the fact that predisposition to mental health problems, or experiences with family members who have similar mental health problems, might positively impact youths' suicide risk by having supportive others with experience in dealing with psychiatric illness. Alternatively, this same predisposition or previous experience could negatively affect youths' suicide risk and exacerbate the challenges they face if there is a lack of response or supportive acknowledgement around mental health or psychiatric illness. Though the present studies did not account for previous familial experience with mental health, future research should incorporate these factors to account for the potential intergenerational context of mental health in the lives of youth.

These dissertation studies expand the current body of literature on Black youths' religious involvement by examining religious involvement as both a protective and promotive factor against suicide risk among diverse samples of Black youth. The protective and promotive risk and resilience frameworks utilized here offer important guidance for contextualizing risk factors to which Black youth are exposed in the context of promotive or protective factors that youth can

access. These two studies work together to inform the extant literature by first acknowledging that interpersonal challenges and discrimination are indeed risk-exacerbating factors for suicide among Black youth. Fergus and Zimmerman (2005) might argue the importance of focusing on the potential protective role of religious involvement and its relation to suicide risk, as some findings from these studies suggest. Insight into whether, how, and to what extent religious support can be protective in nature when youth experience discrimination expands our understanding of how different communities can reach youth who struggle with peer experiences.

Findings from these studies also complicate the relation between religious involvement and suicide risk among Black youth who experience interpersonal problems, as one study identified a non-promotive association between religious support and suicidal ideation over a sixmonth period. Whereas, the other study identified both protective and non-protective associations between religious involvement and suicide risk factors. This finding warrants further examination, especially in the context of the two dissertation studies in parallel, as it suggests there may be additional mechanisms at work in the relations between religious involvement and suicide risk. For example, these relations could be reflective of youth who seek support after becoming suicidal, however, this study has limited ability to examine this possibility given the analyses utilized. Additionally, though the present study included many youth who reported being victimized, the study did not examine the reasons for victimization. If youth were being victimized for reasons that also cause contention in many religious settings (e.g. sexual orientation, gender non-conformity), then we might expect such findings. However, these studies lack the ability to determine such factors. Moving forward, research must account for demographic and socio-cultural aspects of youths' experiences that impact their experiences. In

this way, researchers can expand the scope of potential protective and promotive factors to advance models of risk and resilience. Such examinations will serve to strengthen our understanding of youths' experiences and further examine the usefulness of frameworks such and the risk and resilience models examined here.

Finally, this dissertation sought to acknowledge that there exist varying ethnic identities within the racial group labeled "Black." Examining the relations in this dissertation by African American and Caribbean Black ethnicity adds a complexity to this story. These studies highlight varying outcomes associated with common stressors that youth of different ethnicities face. Though religious involvement can be protective for some Black youth, this may not be the case for all Black youth who are exposed to discrimination. Despite the growing number of studies with more attention to Caribbean Black youth (Butler-Barnes et al., 2016; Hope et al., 2017; Seaton et al., 2008; Seaton et al., 2010a; Seaton et al., 2010b;), there is limited information regarding the experiences of these youth and everyday discrimination in the context of mental health, paying specific attention to various aspects of religious involvement. Previous studies suggest that these disparate findings may be explained by potential differences in socialization messages passed on within native-born and foreign-born Black families (Butler-Barnes et al., 2016). There exists potential for different race-based experiences and challenges that are unique to being of Caribbean descent; these may inform the ways parents engage with children about topics such as discrimination, and youths' experience may be different still from their parents. Each constellation of possibilities is justification for the importance of continued exploration of these and other questions regarding the mental wellness of Caribbean Black youth and families as a necessary expansion of current literature.

#### **Methodological Considerations**

A strength of this dissertation is the utilization of two unique datasets to examine similar empirical questions. These two distinct datasets provide opportunities to learn about Black youth with a range of experiences. The NSAL study provides a view of a general population of Black youth which affords the opportunity to draw large scale conclusions about Black youth of different ethnicities. Study one provides a cross-sectional view of how religious involvement might modulate suicide risk associated with discrimination for Black youth across the nation. The LET's CONNECT study draws from an intervention population of youth who are at elevated risk for suicide. Study two prospectively examines how religious involvement might exert positive influence on Black youths' suicide risk even when they are at elevated risk for suicide owing to interpersonal challenges they face. While conclusions drawn from the LET's CONNECT data are framed in the context of the population examined, this study adds value to the findings by highlighting considerations for youth who might be among the more vulnerable to suicide risk than their peers due to interpersonal challenges. Additionally, examining the influence of discrimination in the NSAL study and victimization and low social connectedness in the LET's CONNECT study is a strength of this dissertation because discrimination, victimization, and social disconnectedness are important stressors that Black youth face. Taking into consideration the various forms of interpersonal stressors that Black youth endure is important for improving knowledge and understanding of youths' experiences, as well as efforts to positively impacting their experiences.

Further, these studies allowed for a detailed examination of Black youths' use of religious involvement in the context of challenging social circumstances. The ability of both studies to examine the associations between Black youths' reports of the same measures of religious involvement (private religious practices, religious (church-based) support, and organizational

religiousness) and suicide risk is notable. This consistency allows for more clear interpretation of the specific avenues of religious involvement that might be important for different populations of Black youth (e.g. the general population versus those who have challenging interpersonal experiences). Through these studies, we learn that religious support might be an effective buffer against discrimination for Black youth in the general population, however the same religious support appears to be associated with greater risk of suicide for some, including those an already vulnerable population of Black youth. One limitation of these examinations of religious support, though, is the assumption within these studies that religious involvement is a stable factor across time for Black youth. Given this assumption, these dissertation studies examined religious involvement at one point in time, however future studies should consider the potential change in Black youths' religious involvement over time, and implications this might have on the links between religious involvement and suicide risk for Black youth.

Though these studies are beneficial in identifying a link between religious support and suicidal ideation, it will be important to develop more nuanced longitudinal studies of youth with interpersonal problems to determine the temporal nature of the relation between these factors and move closer to establishing causality. Future studies could gain important information by including three or more time points for each measure. This would allow researchers to examine latent growth models of religious involvement to understand intra- and inter-individual variation and change in these youths' belief systems over time. This methodology could help explain population level relations across time. As it stands, the present study is unable to determine whether socially disconnected youth are engaged with religious support, which then leads them to experience suicidal ideation; or whether socially disconnected youth are reaching out to their religious communities for support in managing their existing suicidal ideation. Long-term

quantitative studies can help clarify the connection between religious support and suicidal ideation. Qualitative studies also provide opportunities to learn about youths' mental health. And can illuminate the nuances of youths' relationships in their religious communities. Providing Black youth with opportunities to share their personal experiences regarding religious involvement and suicide would provide researchers with concrete information about youths' interactions in various social and interpersonal settings. This methodology would provide opportunities to access historical information from youth about their religious lives in the past, present, and future. Similarly, qualitative studies would also provide the opportunity for researchers to collect detailed information about youths' experiences with mental health with friends, family, peers, and in religious communities.

Although these studies provide important information regarding the role of religious involvement among unique groups of Black youth, there were challenges associated with the studies. One such challenge is the variation in suicide risk measures. Though examined in a nationally representative sample, using binary measures to assess suicide risk factors limits the ability to identify variation on the outcome of interest. Continuous measures, as compared to dichotomous measures, can provide more information in terms of severity and level of impairment. Future research should consider utilizing such measures to identify potential nuances that exist for youth who experience symptoms of those disorder that have been associated with suicide risk. Additionally, future research should examine to possibility of risk profiles within such national samples as the NSAL, as profiles might provide additional information about constellations of factors that impact suicide risk for Black youth. Similarly, utilizing the LET's CONNECT intervention study data allows results to generalize to youth who are at elevated risk for suicide, however, examining measures of suicide risk that parallel those in

the NSAL study might have allowed for more direct comparisons between the studies. Again, developing profiles of risk for future studies would assist with identifying important factors to include in assessing Black youths' suicide risk.

Related to the assessment of suicide risk in these dissertation studies is the acknowledgement that there were a limited number of stressors examined in the studies. Though both studies highlighted important relational factors that negatively impact Black youths' stress and coping, it was not possible to consider all potential stressors. The limited number of constructs selected for examination in these dissertation studies were some of many possible risk factors that could be associated with suicide risk for Black youth (Klonsky et al., 2013; Willis et al., 2002). Future research should continue to identify and examine interpersonal stressors that are negatively associated with Black youths' mental health. Similarly, rethinking measures of discrimination for youth might provide insight into their experiences with a focus on developmental appropriateness. For example, Black youth report experiencing everyday discrimination; in addition to this, it is likely that they experience discrimination indirectly as well. Given the current state of the U.S. social and political climate, it is possible that young people who may not have experienced someone following them in a store, have had the experience of watching other Black youth assaulted and killed in the news or on social media, or worse in their neighborhoods. Likewise, youth might be more likely to experience negative mental health consequences from other more developmentally unique forms of discrimination, such as ethnic/racial teasing by peers (Douglass, Mirpuri, English, & Yip, 2016). Further, it is increasingly important to move beyond dichotomies of social identities, specifically regarding gender and sexual orientation. As Black youth explore their personal and social identities, they may also face additional stigma, isolation, and discrimination related to these identities (Birkett

& Espelage, 2015; Rinehart, Espelage, & Bub, 2017). This includes being forced into binary categories—for example, gender—that limit their expression of personal identities. Similarly, modern youth suffer from victimization in person, and online (e.g. cyber bullying) (Wang et al., 2009). Such online harassment also includes online racial discrimination that has been negatively associated with psychological distress (Tynes, Giang, Williams, & Thompson, 2008). These and other more developmentally and culturally relevant measures of interpersonal problems and victimization should be incorporated into future studies examining the role of religious involvement as promotive and protective factors against suicide risk among Black youth.

## **Practical Implications**

As research moves toward a better understanding of relational risk factors that Black youth face and the promotive and protective factors that can help attenuate Black youths' suicide risk, there are practical implications that are important to highlight. Religious support appears to be important for the general population of Black youth, as well as Black youth who have interpersonal problems, though the nuances of these relations require continued study. Even when the influence of religious support is unclear, these results indicate that connectedness with family and school have positive influences on suicide risk. Given the current evidence base and the findings from this study, it is clear that support from families and communities to which Black youth have strong ties can help these youth in managing difficult interpersonal stressors. Therefore, it will be important to continually assess the availability of these support resources for youth.

Given the mixed findings of these studies, it is important to consider other coping strategies and contexts where Black youth might engage when experiencing relational problems. Clinically, it is important to ensure that youth can identify various coping strategies if they ever

experience suicidal thoughts. Unfortunately, this is a pervasive concern and many youth are struggling with thoughts of killing themselves. Often youth feel lonely and isolated. Helping Black youth identify that struggles with suicidal thoughts and behaviors are quite common for youth who are dealing with stressful life circumstances might increase communication about these difficulties. Given that suicide had historically been conceptualized as a problem not affecting Black youth (Gibbs, 1997), there is an increased importance bringing concerns about Black youth suicide to the forefront of identifying ways to promote healthy coping for relational problems these youth face.

Family, schools, and communities can play an important role in preventing Black youth suicide. Encouraging open communication with youth about challenges they experience, such as concerns regarding family, peers, mental health struggles, school functioning, or any other interpersonal factors will be important for normalizing youths' experiences and challenges. Identifying where youth struggle is a first step in providing support and can span across various proven protective settings such as at home, at school, or within religious institutions. For example, school- or community-based programs might help youth identify coping strategies and trusted adults to contact during times of crisis. Adults, schools, and community settings could actively engage youth in thinking about individuals within their religious communities who they can contact for support. Helping youth broaden their support networks to include adults in various settings might provide added support when youth encounter stressors that feel unbearable.

Clinicians are often wary of broaching the subject of religion and religious involvement with their clients. Findings from these studies suggest that in many cases this may be a missed opportunity to identify important support systems for youth who struggle with other

interpersonal relationships. Findings also suggest that religious involvement might also be a major stressor for some youth. Youth who experience stress *from* their religious communities could likely benefit from a neutral party to help navigate these expectations and related stressors. In either case, avoiding a topic that may have important implications for youths' mental health outcomes and suicide risk is improvident.

The present studies examined the promotive and protective role of religious involvement in the lives of Black youth against suicide risk in the context of relational risk. Relational risk factors considered include discrimination and interpersonal problems, specifically, involvement in victimization and low social connectedness. Though discrimination and interpersonal problems pose significant risk to Black youths' suicide risk, religious involvement appears to influence youths' experiences, but without uniformity. As explained above, in some cases, religious support is associated with decreased odds of select suicide risk factors for Black youth who experience discrimination. In other cases, religious support is associated with increases in select suicide risk factors for Black youth who struggle with discrimination and other interpersonal problems. These important, complex, and nuanced relations require additional research and thorough examination, thus it is indeed necessary to develop this body of work and continue to identify ways to support Black youth and promote their positive mental health. In the process of moving toward illuminating distinctions in the role that religious involvement plays in the lives of Black youth, it will be important for families, schools, and communities to continue to utilize existing knowledge in conjunction with new knowledge to support Black youth across settings—at home, in schools, and in religious institutions.

# **Tables and Figures**

Table 1.1. Descriptive Statistics For Key Study Variables

	Total	Boys	Girls				
	Mean (SE)	Mean (SE)	Mean (SE)	F	df		Sig.
Age	14.97 (.05)	14.98 (.07)	14.98 (.07)	.000	1130		.972
Everyday Discrimination	5.12 (.14)	5.45 (.21)*	4.79 9.18)	5.59	1130		.02
Private Religious Practices	13.26 (.12)	12.57 (.18)	13.34 (.16)**	10.05	1130		.002
Religious (Church) Support	12.02 (.13)	12.07 (.20)	11.97 (.17)	.16	999		.694
	Weighted %	Weighted %	Weighted %	Adjusted F	df1	df2	Sig.
Gender	1170(100%)	563(48%)	607(52%)				
Ethnicity	1170(100%)	810(69%)	360(31%)				
African American	810	398	412				
Caribbean Black	360	165	195				
Suicidal Ideation							
Yes	7.5%	5.6%	9.4%*	4.11	1	1127	.043
No	92.5%	94.4%	90.6%				
Lifetime MDD							
Yes	6.2%	5.9%	6.7%	.20	1	1130	.652
No	93.8%	94.1%	93.3%				
Lifetime GAD							
Yes	1%	0.9%	1.1%	.14	1	1130	.701
No	99%	99.1%	98.9%				
Lifetime DBD							
Yes	14.1%	14.5%	13.7%	.09	1	1130	.760
No	85.9%	85.4%	86.1%				
Lifetime SUD							
Yes	4.7%	7.4%***	1.9%	14.05	1	1130	≤.001
No	95.3%	92.5%	97.9%				

*Notes.* n = 1167. MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.

<sup>\*</sup>  $p \le 0.05$ . \*\*  $p \le 0.01$  \*\*\*  $p \le 0.001$ 

Table 1.2. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD

		SIa			MDD			GAD			DBD			SUD	
	OR	CI	р	OR	CI	р	OR	CI	р	OR	CI	р	OR	CI	р
	(SE)			(SE)			(SE)			(SE)			(SE)		
Everyday	1.09**	1.02 -	.009	1.11**	1.02 -	011	.98	.88 –	.737	1.08*	1.01 –	020	1.08	.98 –	075
Discrimination	(.33)	1.15	.009	(.04)	1.19	.011	(.05)	1.10	./3/	(.04)	1.15	.029	(.05)	1.19	.975
Ethnicity	1.15	.55 —	605	1.01	.61 –	060	1.11	.21 –	909	1.04	.46 –	020	.76	.31 –	5.40
(Caribbean)	(.42)	2.40	.695	(.25)	1.66	.969	(.91)	5.83	.898	(.41)	2.32	.930	(.34)	1.87	.542
Gender	1.88*	1.05 -	024	1.25	.67 –	460	1.25	.32 –	741	1.00	.75 —	007	.27**	.13 –	001
(Female)	(.54)	3.37	.034	(.39)	2.34	.469	(.83)	4.80	.741	(.15)	1.34	.987	(.09)	.54	.001
A ~~	1.17*	1.00 -	050	1.30*	1.05 -	010	1.61	.90-	106	1.22**	1.07 –	004	2.03***	1.48 –	<b>≤.001</b>
Age	(.09)	1.36	.050	(.14)	1.62	.018	(.47)	2.90	.106	(.08)	1.40	.004	(.32)	2.80	

Notes. n = 1170.  $^an = 1167$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $*p \le 0.05$ .  $**p \le 0.01$ .  $***p \le 0.001$ .

Table 1.3. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement

		SI <sup>a</sup>			MDD			GAD			DBD			SUD	
	OR	CI	p	OR	CI	p	OR	CI	p	OR	CI	p	OR	CI	p
	(SE)			(SE)			(SE)			(SE)			(SE)		
Private Religious	1.05	.94 –	.367	1.01	.89 –	.898	1.16	.86 –	.328	.98	.91 –	.661	1.00	.89 –	.988
Practices (PRP)	(.06)	1.17	.307	(.07)	1.15	.070	(.17)	1.57	.326	(.04)	1.07	.001	(.06)	1.12	.900
Religious	.92	.78 –		1.05	.95 –		.84	.64 –		1.02	.93 –		1.04	.91 –	
(Church) Support	(.07)	1.07	.279	(.05)	1.17	.322	(.11)	1.10	.190	(.05)	1.11	.746	(.07)	1.19	.566
(RS)	(.07)	1.07		(.03)	1.17		(.11)	1.10		(.03)	1.11		(.07)	1.17	
Organizational	1.05	.89 –		.93	.74 –	<b>=</b> 00	.88	.55 –	4=0	.92	.82 –	40.	.72***	.60 –	0.01
Religiousness	(.08)	1.23	.576	(.10)	1.16	.508	(.19)	1.33	.479	(.05)	1.02	.102	(.06)	.86	.001
(OrgR)	, ,			. ,			, ,			, ,			, ,		
Everyday	1.09*	1.02 –	.016	1.13**	1.04 –	.004	1.02	.92 –	.709	1.08*	1.02 –	.015	1.10	.98 –	.103
Discrimination	(.36)	1.16	.010	(.46)	1.23	•00•	(.05)	1.12	., 0)	(.03)	1.15	.010	(.06)	1.23	.105
Ethnicity	1.25	.57 —	.562	.75	.46 –	.252	1.43	.22 –	.702	1.13	.46 –	.783	.27**	.10 –	.007
(Caribbean)	(.48)	2.73	.302	(.18)	1.23	.232	(1.32)	9.29	.702	(.50)	2.75	.763	(.12)	.68	.007
Gender (Female)	1.62	.87 —	.128	1.19	.65 –	.554	1.04	.25 —	.959	1.02	.74 —	.885	.29**	.13 –	.002
Gender (Female)	(.50)	3.02	.120	(.36)	2.18	.554	(.73)	4.31	.739	(.17)	1.43	.003	(.11)	.62	.002
Λαο	1.17*	1.01 -	.039	1.28*	1.05 -	.017	1.28	.74 —	.371	1.20*	1.02 -	.030	1.97***	1.38 –	<b>≤.001</b>
Age	(.88)	1.36	.039	(.13)	1.56	.01/	(.35)	2.22	.3/1	(1.00)	1.40	.030	(.35)	2.81	<b>≥.</b> 001

Notes. n = 1039.  $^an = 1036$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.4. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement and Discrimination Interactions

		SIa			MDD			GAD			DBD			SUD	•
	OR (SE)	CI	р	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	1.03 (.06)	.93 – 1.15	.548	1.02 (.06)	.90 – 1.16	.723	1.14 (.19)	.82 – 1.59	.447	.97 (.04)	.89 – 1.05	.428	1.00 (.06)	.86 – 1.13	.971
Religious (Church) Support (RS)	.92 (.07)	.79 – 1.08	.317	1.05 (.06)	.94 – 1.17	.348	.85 (.11)	.65 – 1.10	.207	1.01 (.04)	.93 – 1.10	.784	1.06 (.07)	.92 - 1.21	.403
Organizational Religiousness (OrgR)	1.08 (.09)	.92 - 1.27	.356	.94 (.11)	.75 – 1.19	.612	.88 (.18)	.58 – 1.34	.547	.92 (.05)	.82 – 1.03	.140	.74*** (.06)	.63 – .88	.001
Everyday Discrimination	1.09 (.07)	.96 – 1.23	.173	1.12* (.06)	1.00 - 1.26	.044	1.02 (.08)	.88 – 1.18	.807	1.05 (.04)	.98 – 1.14	.171	1.06 (.08)	.91 – 1.23	.466
Ethnicity (Caribbean)	1.26 (.50)	.57 – 2.80	.557	.76 (.19)	.46 – 1.24	.261	1.47 (1.36)	.23 – 9.54	.681	1.14 (.51)	.45 – 2.84	.781	.27** (.12)	.11 – .68	.006
Gender (Female)	1.67 (.56)	.85 – 3.27	.132	1.17 (.34)	.65 – 2.11	.591	1.10 (.78)	.27 – 4.61	.889	.97 (.17)	.69 – 1.44	.888	.26*** (.09)	.13 – .53	<b>≤.001</b>
Discrimination x PRP	1.01 (.01)	.98 – 1.04	.483	.99 (.01)	.97 – 1.02	.653	1.02 (.02)	.98 – 1.07	.248	1.01 (.01)	.99 – 1.04	.384	1.00 (.01)	.98 – 1.02	.998
Discrimination x RS	1.00 (.02)	.97 – 1.03	.958	1.00 (.01)	.97 – 1.03	.936	.97* (.01)	.95 – 1.00	.048	1.01 (.01)	.98 – 1.03	.475	.99 (.01)	.96 – 1.02	.436
Discrimination x OrgR	.97 (.02)	.93 – 1.02	.177	.99 (.02)	.94 – 1.04	.616	.97 (.02)	.92 – 1.02	.259	.99 (.02)	.96 – 1.03	.648	.98 (.04)	.90 – 1.06	.554
Discrimination x Gender	.99 (.07)	.86 – 1.14	.848	1.02 (.06)	.91 – 1.15	.758	.86 (.09)	.71 – 1.06	.146	1.06 (.07)	.92 – 1.21	.423	1.08 (.13)	.84 – 1.37	.549
Age	1.17* (.09)	1.00 - 1.37	.050	1.28* (.13)	1.05 – 1.56	.014	1.28 (.37)	.71 – 2.31	.397	1.20* (.09)	1.03- 1.40	.024	2.01*** (.36)	1.40 - 2.90	≤.001

Notes. n = 1039.  $^{a}n = 1036$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $*p \le 0.05$ .  $**p \le 0.01$ .  $***p \le 0.001$ .

Table 1.5. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Boys

		SI <sup>a,c</sup>			MDD			$GAD^b$			DBD		·	SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	р	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	1.03 (.11)	.83 – 1.29	.747	1.04 (.08)	.89 – 1.21	.635	.91 (.30)	.46 – 1.79	.769	.93 (.05)	.84 – 1.04	.220	1.00 (.06)	.88 – 1.14	.986
Religious (Church) Support (RS)	.87 (.08)	.73 – 1.04	.117	.99 (.08)	.85 – 1.16	.934	.93 (.22)	.57 – 1.52	.765	1.05 (.07)	.93 – 1.20	.414	1.11 (.06)	.99 – 1.24	.073
Organizational Religiousness (OrgR)	1.24 (.20)	.89 – 1.73	.188	.99 (.13)	.76 – 1.30	.954	.46 (.33)	.10 – 2.05	.294	1.01 (.06)	.88 – 1.15	.908	.76* (.08)	.61 – .95	.015
Everyday Discrimination	1.09 (.06)	.97 – 1.23	.135	1.11 (.06)	1.00 - 1.23	.068	1.16 (.20)	.81 – 1.65	.414	1.04 (.04)	.96 – 1.12	.294	1.07 (.08)	.92 – 1.24	.392
Ethnicity (Caribbean)	.46 (.30)	.13 – 1.68	.235	.48 (.21)	.20 – 1.15	.099	_c	_c	_c	1.09 (.73)	.28 – 4.21	.902	.24** (.10)	.11 – .54	.001
Discrimination x PRP	.99 (.02)	.95 – 1.04	.783	1.01 (.02)	.97 – 1.04	.679	1.08 (.06)	.98 – 1.21	.128	1.00 (.01)	.98 – 1.03	.766	1.01 (.02)	.98 – 1.05	.393
Discrimination x RS	1.01 (.02)	.97 – 1.06	.519	1.01 (.02)	.97 – 1.05	.666	.95 (.03)	.89 – 1.01	.122	1.02 (.01)	.99 – 1.05	.227	.98 (.02)	.95 – 1.02	.362
Discrimination x OrgR	.99 (.04)	.91 – 1.09	.905	.96 (.04)	.89 – 1.04	.303	1.04 (.06)	.94 – 1.15	.463	.98 (.02)	.93 – 1.02	.249	.97 (.04)	.89 – 1.05	.384
Age	1.32 (.22)	.95 – 1.84	.095	1.38 (.23)	.99 – 1.92	.058	1.83 (1.08)	.54 – 6.14	.318	1.31 (.18)	.99 – 1.74	.059	2.02*** (.31)	1.48 – 2.77	<b>≤.001</b>

Notes. n = 1093.  $^{a}n = 1092$ .  $^{b}n = 808$ .  $^{c}$ Results omitted because the strata contain no subpopulation members. SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.

<sup>\*</sup>  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.6. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Girls

		SI <sup>a,</sup>	•	·	MDD			GAD			DBD			SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	р	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	1.02 (.08)	.87 – 1.19	.827	1.01 (.08)	.84 – 1.20	.927	1.29* (.13)	1.06 – 1.58	.014	.99 (.07)	.86 – 1.14	.931	1.04 (.11)	.84 – 1.30	.714
Religious (Church) Support (RS)	.95 (.09)	.79 – 1.15	.608	1.09 (.08)	.94 – 1.27	.231	.81** (.05)	.71 - .92	.003	.97 (.06)	.86 – 1.10	.602	.88 (.13)	.65 – 1.19	.400
Organizational Religiousness (OrgR)	1.00 (.11)	.80 - 1.15	.980	.91 (.14)	.66 – 1.24	.518	1.15 (.16)	.88 – 1.51	.293	.84 (.09)	.67 – 1.06	.132	.69 (.14)	.45 – 1.05	.084
Everyday Discrimination	1.06 (.04)	.98 – 1.14	.121	1.16** (.05)	1.06 – 1.27	.001	.98 (.04)	.89 – 1.06	.558	1.12 (.07)	.99 – 1.26	.067	1.15 (.22)	.77 – 1.70	.491
Ethnicity (Caribbean)	1.69 (.72)	.72 – 3.99	.224	.96 (.32)	.49 – 1.90	.914	3.37 (3.6)	.39 – 28.79	.966	1.18 (.39)	.62 – 2.29	.601	.34 (.29)	.06 – 1.94	.217
Discrimination x PRP	1.02 (.02)	.99 – 1.05	.207	.98 (.02)	.94 – 1.03	.415	.98 (.01)	.96 – 1.01	.213	1.01 (.02)	.97 – 1.05	.481	.96 (.04)	.88 – 1.05	.398
Discrimination x RS	.99 (.02)	.94 – 1.04	.752	.99 (.02)	.96 – 1.03	.700	1.00 (.02)	.96 – 1.03	.871	1.00 (.02)	.97 – 1.04	.892	1.00 (.06)	.89 – 1.13	.966
Discrimination x OrgR	.95* (.02)	.91 – .99	.023	1.01 (.03)	.94 – 1.08	.809	1.00 (.01)	.97 – 1.03	.873	1.01 (.03)	.96 – 1.07	.611	1.01 (.05)	.91 – 1.11	.919
Age	1.09 (.15)	.83 – 1.42	.512	1.23** (.18)	.91 – 1.66	.171	1.01 (.36)	.50 – 2.08	.996	1.09 (.13)	.85 – 1.40	.418	1.89 (.62)	.98 – 3.67	.057

Notes. n = 1116.  $^a n = 1114$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $*p \le 0.05$ .  $**p \le 0.01$ .  $***p \le 0.001$ .

Table 1.7. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD by Ethnicity

		$SI^a$			$MDD^{b}$			$GAD^b$			$DBD^{b}$			$SUD^b$	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
						Africa	ın Ameri	can Youtl	ı						
Everyday Discrimination	1.08* (.08)	1.01 – 1.16	.019	1.10* (.04)	1.02 – 1.19	.019	.99 (.06)	.88 – 1.11	.901	1.07 (.04)	1.00 - 1.15	.060	1.07 (.05)	.97 – 1.19	.164
Gender (Female)	1.72 (.51)	.94 – 3.17	.075	1.19 (.39)	.60 – 2.35	.604	1.13 (.80)	.27 – 4.82	.860	.99 (.15)	.72 – 1.36	.952	.25* (.09)	.12 - .53	.001
Age	1.16* (.08)	1.00 - 1.34	.049	1.29* (.15)	1.02 – 1.64	.033	1.76 (.58)	.90 – 3.44	.096	1.23* (.08)	1.07 – 1.41	.005	2.02* (.33)	1.44 – 2.83	<.001
		SIc			$MDD^d$			GADe			$\mathrm{DBD^d}$			$\mathrm{SUD}^{\mathrm{d}}$	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	р	OR (SE)	CI	p	OR (SE)	CI	p
						Carib	bean Bla	ick Youth							
Everyday Discrimination	1.19* (.07)	1.05 – 1.34	.008	1.18 (.10)	.98 – 1.43	.082	.75 <sup>f</sup> (.18)	.47 – 1.20 <sup>f</sup>	.228 <sup>f</sup>	1.22* (.05)	1.11 – 1.33	<.001	1.14 (.13)	.89 – 1.46	.267
Gender (Female)	9.11* (6.54)	1.96 – 42.45	.008	2.98* (1.48)	1.03 – 8.67	.046	_f	_e	$.096^{\rm f}$	1.45 (.48)	.71 – 2.94	.285	.81 (.65)	.14 – 4.49	.791
Age	1.16 (.66)	.35 – 3.90	.790	1.34 (.24)	.91 – 1.96	.125	.58 <sup>f</sup> (.15)	.35 – .95 <sup>f</sup>	.032*f	1.16 (.39)	.57 – 2.37	.661	2.14* (.58)	1.20 – 3.82	.014

Notes.  ${}^{a}n = 893$ .  ${}^{b}n = 895$ .  ${}^{c}n = 405$ .  ${}^{d}n = 406$ .  ${}^{e}n = 241$ .  ${}^{f}Results$  represent values for girls only as Caribbean Black boys met criteria for Generalized Anxiety Disorder. SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.8. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for African American Youth

		SIa			MDD			GAD			DBD	<u> </u>		SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	1.06 (.06)	.95 – 1.19	.272	1.01 (.07)	.88 – 1.16	.891	1.14 (.19)	.82 – 1.59	.426	1.00 (.04)	.92 - 1.08	.922	1.01 (.06)	.90 – 1.13	.893
Religious (Church) Support (RS)	.90 (.07)	.76 – 1.07	.223	1.05 (.06)	.94 – 1.18	.343	.80 (.12)	.59 – 1.09	.146	1.01 (.05)	.91 – 1.11	.867	1.04 (.07)	.90 – 1.19	.606
Organizational Religiousness (OrgR)	1.08 (.09)	.90 - 1.28	.396	.92 (.11)	.72 – 1.17	.466	.85 (.21)	.51 – 1.42	.528	.91 (.05)	.81 – 1.02	.097	.71* (.07)	.59 - .86	.001
Everyday Discrimination	1.08* (.04)	1.01 – 1.16	.033	1.13* (.05)	1.04 – 1.23	.007	1.03 (.05)	.94 – 1.14	.501	1.08* (.04)	1.01 – 1.15	.036	1.10 (.06)	.98 – 1.24	.104
Gender (Female)	1.46 (.47)	.76 – 2.82	.243	1.16 (.37)	.61 – 2.23	.634	.90 (.68)	.19 – 4.23	.887	1.01 (.18)	.71 – 1.44	.961	.28* (.11)	.13 - .62	.003
Age	1.17* (.08)	1.01 - 1.35	.032	1.29* (.14)	1.04 - 1.60	.021	1.38 (.42)	.75 – 2.57	.291	1.21* (.10)	1.02 - 1.43	.033	1.96* (.35)	1.36 – 2.84	.001

Notes. n = 811.  $^{a}n = 809$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.9. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Caribbean Black Youth

		SIa			MDD	·	•	$GAD^b$			DBD			SUD	-
	OR	CI	p	OR	CI	p	OR	CI	p	OR	CI	p	OR	CI	p
	(SE)			(SE)			(SE)			(SE)			(SE)		
Private Religious Practices (PRP)	.86 (.16)	.58 – 1.28	.430	.99 (.10)	.80 - 1.23	.938	1.60**c (.24)	1.19 – 2.14 <sup>c</sup>	.002°	.81 (.13)	.57 – 1.16	.229	.71* (.06)	.59 - .86	.002
Religious (Church) Support (RS)	1.09 (.18)	.76 – 1.55	.620	1.05 (.10)	.87 – 1.28	.587	1.33*c (.18)	1.03 – 1.73 <sup>c</sup>	.029*c	1.10 (.14)	.84 – 1.43	.476	1.27* (.08)	1.10 - 1.45	.003
Organizational Religiousness (OrgR)	.80 (.18)	.49 – 1.30	.336	1.13 (.15)	.85 – 1.50	.373	.92° (.15)	.67 – 1.27°	.615°	1.02 (.09)	.83 – 1.24	.864	1.08 (.32)	.58 – 2.03	.798
Everyday Discrimination	1.19* (.07)	1.05 – 1.35	.009	1.21* (.09)	1.04 – 1.41	.017	.73° (.22)	.40 – 1.32°	.293°	1.23* (.07)	1.10 – 1.38	.002	.97 (.11)	.77 – 1.23	.820
Gender (Female)	8.61 (6.22)	1.83 – 40.57	.010	2.98 (1.54)	.98 – 9.03	.053	_c	_c	_c	1.74 (.73)	.71 – 4.26	.205	.53 (.36)	.12 – 2.26	.361
Age	1.05 (.45)	.42 – 2.64	.904	.98 (.19)	.65 – 1.48	.933	.60° (.30)	.22 – 1.60°	.306°	1.05 (.27)	.60 – 1.83	.866	2.02* (.36)	1.38 – 2.95	.001

Notes. n = 359.  $^{a}n = 358$ .  $^{b}n = 223$ .  $^{c}$ Results omitted because the strata contain no subpopulation members. SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.

<sup>\*</sup>  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.10. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for African American Youth

		SI <sup>a</sup>	•		MDD			GAD			DBD	· ·	•	SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	1.05 (.06)	.94 – 1.18	.386	1.03 (.07)	.90 – 1.18	.673	1.10 (.20)	.76 – 1.60	.601	.98 (.04)	.90 – 1.07	.649	1.01 (.06)	.89 – 1.15	.836
Religious (Church) Support (RS)	.91 (.07)	.77 – 1.07	.247	1.05 (.06)	.94 – 1.18	.386	.82 (.12)	.60 – 1.10	.175	1.00 (.04)	.92 - 1.10	.912	1.05 (.07)	.92 - 1.21	.468
Organizational Religiousness (OrgR)	1.11 (.10)	.93 – 1.32	.259	.93 (.12)	.72 – 1.20	.540	.88 (.20)	.55 – 1.41	.597	.91 (.06)	.80 - 1.03	.132	.73*** (.06)	.62 – .87	.001
Everyday Discrimination	1.09 (.07)	.97 – 1.24	.152	1.12* (.07)	1.00 – 1.27	.051	1.01 (.07)	.88 – 1.16	.855	1.05 (.04)	.97 – 1.13	.242	1.05 (.08)	.90 – 1.23	.504
Gender (Female)	1.53 (.53)	.75 – 3.11	.232	1.15 (.36)	.61 – 2.17	.647	.96 (.72)	.21 – 4.44	.952	.97 (.17)	.67 – 1.39	.847	.25*** (.09)	.12 - .52	.001
Discrimination x PRP	1.01 (.01)	.98 – 1.04	.600	.99 (.01)	.96 – 1.02	.555	1.03 (.02)	.98 – 1.08	.227	1.01 (.01)	.98 – 1.04	.397	1.00 (.01)	.97 – 1.02	.837
Discrimination x RS	1.00 (.02)	.97 – 1.04	.995	1.00 (.01)	.97 – 1.03	.854	.98 (.01)	.95 – 1.01	.123	1.01 (.01)	.98 – 1.04	.417	.99 (.01)	.96 – 1.02	.580
Discrimination x OrgR	.97 (.02)	.93 – 1.02	.263	.99 (.02)	.94 – 1.04	.690	.97 (.02)	.93 – 1.02	.299	.99 (.02)	.96 – 1.03	.614	.97 (.04)	.90 – 1.06	.540
Discrimination x Gender	.97 (.07)	.84 – 1.12	.710	1.01 (.06)	.89 – 1.15	.853	.90 (.08)	.75 – 1.07	.235	1.05 (.08)	.91 – 1.22	.480	1.09 (.14)	.85 – 1.41	.476
Age	1.16* (.09)	1.00 - 1.35	.046	1.30* (.13)	1.05 - 1.60	.018	1.39 (.45)	.71 – 2.72	.328	1.21* (.10)	1.02 – 1.43	.028	2.01*** (.37)	1.37 – 2.94	≤.001

Notes. n = 811.  $^an = 809$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $*p \le 0.05$ .  $**p \le 0.01$ .  $***p \le 0.001$ .

Table 1.11. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Caribbean Black Youth

		$SI^a$			MDD			$GAD^b$			DBD			SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private															
Religious	.83	.52 –	400	.94	.74 –	(02	1.90	.90 –	001	.79	.58 —	1.50	.64*	.45 –	022
Practices (PRP)	(.19)	1.34	.423	(.10)	1.20	.603	(.72)	4.01	.091	(.12)	1.10	.152	(.11)	.93	.022
Religious	1 12	7.6		1 11	0.2		1 22	1.07		1.16	0.5		1 5044		
(Church)	1.13	.76 –	.513	1.11	.93 –	.236	1.32	1.07 –	.011	1.16	.85 –	.322	1.59**	1.15 –	.009
Support (RS)	(.21)	1.69		(.09)	1.32		(.14)	1.62		(.17)	1.59		(.24)	2.21	
Organizational	.84	.51 –		1 17	.90 –		.54	25		.98	74		00	22	
Religiousness		1.37	.453	1.17	.90 – 1.52	.211		.25 – 1.18	.123		.74 – 1.31	.902	.90	.33 – 2.49	.833
(OrgR)	(.19)	1.5/		(.14)	1.32		(.21)	1.10		(.13)	1.31		(.43)	2.49	
Everyday	.91	.71 –	.466	1.06	.85 —	.586	1.02	.88 —	.807	1.16	.99 –	.058	1.47	1.23 –	<b>≤.001</b>
Discrimination	(.11)	1.18	.400	(.11)	1.32	.380	(.08)	1.18	.807	(.08)	1.35	.038	(.12)	1.74	≥.001
Gender	5.81*	1.44 –	.017	2.14	.75 —	.143	_c	_c	_c	1.44	.66 –	.329	.24	.03 –	.149
(Female)	(3.78)	23.45	.01/	(1.04)	6.09	.143			_,	(.52)	3.45	.329	(.23)	1.77	.149
Discrimination	1.05	.97 –	220	1.03	.98 –	.171	1.03	.82 —	.805	1.00	.96 –	024	1.15*	1.00 -	050
x PRP	(.04)	1.14	.239	(.02)	1.08	.1/1	(.12)	1.28	.805	(.02)	1.05	.834	(.07)	1.32	.050
Discrimination	.99	.94 –	770	.99	.94 –	5.12	.1.00	.94 –	076	.97	.92 –	200	.85**	.76 –	012
x RS	(.02)	1.05	.770	(.02)	1.04	.543	(.03)	1.07	.876	(.02)	1.02	.200	(.05)	.96	.013
Discrimination	.93	.87 –	0.50	.96	.89 –	255	.78	.57 –	100	1.02	.95 –	511	1.13**	1.04 –	007
x OrgR	(.03)	1.00	.059	(.04)	1.05	.355	(.12)	1.07	.123	(.04)	1.11	.544	(.04)	1.22	.006
Discrimination	1.34	.98 –	064	1.19	.90 –	100	_c	_c	_c	1.10	.91 –	202	.54**	.35 –	005
x Gender	(.19)	1.82	.064	(.15)	1.56	.198	_°			(.09)	1.32	.303	(.11)	.82	.007
<b>A</b>	1.12*	.42 –	0.07	1.01*	.71 –	0.47	.62	.24 –	210	1.05	.60 –	0.62	3.13	.86 –	000
Age	(.51)	3.00	.807	(.16)	1.43	.947	(.30)	1.59	.319	(.27)	1.83	.863	(1.89)	11.46	.080

Notes. n = 359.  $^an = 358$ .  $^bn = 223$ .  $^c$ Results omitted because the strata contain no subpopulation members. SI = Suicidal Ideation, MDD = Major Depressive Disorder. SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.

<sup>\*</sup>  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.12. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for African American Boys

		SIa	<u>-</u>		MDD			GAD			DBD	·		SUD	<u>-</u>
	OR (SE)	CI	P	OR (SE)	CI	p	OR (SE)	CI	р	OR (SE)	CI	p	OR (SE)	CI	р
Private															
Religious	1.04	.83 –	.705	1.04	.89 –	500	.91	.46 –	.769	.94	.84 –	.279	1.01	.88 –	010
Practices	(.12)	1.32	.703	(80.)	1.23	.598	(.30)	1.79	./09	(.05)	1.05	.219	(.07)	1.15	.910
(PRP)	` ′			` ′			. ,			, ,			` ′		
Religious	.86	.71 –		.99	.84 –		.93	.57 —		1.06	02		1.11	.99 –	
(Church)	(.08)	1.04	.121	(.08)	1.17	.936	(.22)	1.52	.765	(.07)	.93 – 1.22	.369		1.24	.083
Support (RS)	(.08)	1.04		(.08)	1.1/		(.22)	1.32		(.07)	1.22		(.06)	1.24	
Organizational	1.23	.86 –		.96	.73 –		.46	.10 —		.96	.83 –		.75**	.60 –	
Religiousness	(.21)	1.76	.240	(.13)	1.27	.774	(.33)	2.05	.294	(.07)	1.11	.581	(.08)	.00 – .94	.014
(OrgR)	(.21)	1.70		(.13)	1.47		(.55)	2.03		(.07)	1.11		(.00)	.)4	
Everyday	1.10	.97 –	.132	1.10	.99 –	.083	1.16	.81 –	.414	1.03	.95 –	.443	1.06	.91 –	.423
Discrimination	(.07)	1.24	.132	(.06)	1.24	.065	(.20)	1.66	.414	(.04)	1.12	.443	(80.)	1.23	.423
Discrimination	1.00	.95 –	.704	1.01	.97 –	.692	1.08	.98 –	.128	1.01	.98 –	.563	1.01	.98 –	.416
x PRP	(.02)	1.04	./04	(.02)	1.04	.092	(.06)	1.21	.128	(.01)	1.04	.303	(.02)	1.05	.410
Discrimination	1.01	.97 –	402	1.01	.97 –	(16	.95	.89 –	122	1.02	.99 –	105	.99	.95 –	421
x RS	(.02)	1.06	.492	(.02)	1.06	.646	(.03)	1.01	.122	(.01)	1.04	.195	(.02)	1.02	.421
Discrimination	1.00	.91 –	0.41	.96	.89 –	220	1.04	.94 –	462	.97	.92 –	101	.96	.89 –	274
x OrgR	(.04)	1.09	.941	(.04)	1.04	.320	(.05)	1.15	.463	(.02)	1.05	.121	(.04)	1.05	.374
	1.32	.94 –	102	1.37	.97 –	071	1.83	.54 –	210	1.33	.98 –	0.62	2.01***	1.45 –	< 0.01
Age	(.22)	1.87	.103	(.23)	1.95	.071	(1.08)	6.14	.318	(.20)	1.80	.063	(.32)	2.78	<b>≤.001</b>

Notes. n = 847.  $^an = 846$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.13. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for African American Girls

		$SI^a$			MDD			GAD			DBD			SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private													, ,		
Religious	1.04	.88 –	.657	1.02	.83 –	.859	1.26	.96 –	.099	1.02	.87 –	.788	1.10	.85 –	151
Practices	(.09)	1.23	.03/	(.10)	1.24	.839	(.17)	1.65	.099	(.08)	1.19	./88	(.14)	1.41	.454
(PRP)															
Religious	.93	.76 –		1.09	.93 –		.75***	.66 –		.94	.82 –		.84	.61 –	
(Church)	(.09)	1.14	.471	(.09)	1.29	.283	(.05)	.86	<b>≤.001</b>	(.06)	1.08	.361	(.13)	1.14	.250
Support (RS)	(.0)	1.11		(.07)	1.20		(.03)	•00		(.00)	1.00		(.13)	1.11	
Organizational	1.04	.81 –	<b></b> 2	.89	.63 –	<b>7</b> 0.6	1.17	.81 –	201	.86	.68 –	222	.68	.41 –	110
Religiousness	(.13)	1.32	.773	(.15)	1.26	.506	(.21)	1.70	.381	(.10)	1.10	.222	(.16)	1.10	.112
(OrgR)				` ′						` ′			` ´		
Everyday	1.05	.96 –	.265	1.16**	1.05 –	.005	1.01	.94 –	.779	1.11	.97 –	.121	1.19	.77 –	.422
Discrimination	(.05)	1.15		(.06)	1.28		(.04)	1.09		(.07)	1.26		(.26)	1.85	
Discrimination	1.02	.99 –	.258	.98	.93 –	.341	.98	.95 –	.355	1.01	.97 –	.622	.95	.86 –	.288
x PRP	(.02)	1.05		(.02)	1.03		(.02)	1.02		(.02)	1.06		(.04)	1.04	
Discrimination	.99	.94 –	.727	1.00	.96 –	.820	1.01	.97 –	.048	1.00	.97 –	.822	1.01	.89 –	.804
x RS	(.03)	1.05	.,_,	(.02)	1.03	.020	(.02)	1.04		(.02)	1.04		(.06)	1.15	
Discrimination	.95*	.91 –	.040	1.01	.94 –	.728	1.01	.98 –	.662	1.02	.97 –	.471	1.01	.90 –	.903
x OrgR	(.02)	1.00	•0 •0	(.04)	1.09	.,20	(.01)	1.03	.002	(.03)	1.07		(.05)	1.12	.,05
Age	1.08*	.82 –	.561	1.26	.92 –	.147	1.11	.47 —	.813	1.09	.84 –	.500	1.93	.96 –	.064
	(.15)	1.42	.501	(.20)	1.73	,11/	(.47)	2.62	.015	(.14)	1.40	.500	(.36)	3.86	.001

Notes. n = 859.  $^{a}n = 858$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $*p \le 0.05$ .  $**p \le 0.01$ .  $***p \le 0.001$ .

Table 1.14. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Caribbean Black Boys

		SI			MDD			GAD			DBD			SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private Religious Practices (PRP)	.78* (.12)	.57 – 1.06	.048	1.07 (.17)	.78 – 1.47	.681	_a	_a	_a	1.01 (.14)	.77 – 1.32	.956	.31 (.24)	.07 – 1.42	.132
Religious (Church) Support (RS)	1.03 (.21)	.69 – 1.54	.112	.97 (.17)	.68 – 1.37	.855	_a	_ <sup>a</sup>	_a	.88 (.15)	.63 – 1.22	.437	2.14 (1.17)	.73 – 6.29	.166
Organizational Religiousness (OrgR)	1.44 (.37)	.69 – 1.53	.888	2.05 (.53)	1.23 – 3.42	.006**	_a	_a	_a	1.74** (.31)	1.22 - 2.48	.002	1.67 (.59)	.83 – 3.33	.148
Everyday Discrimination	1.12* (.06)	1.00 - 1.24	.048	1.04 (.11)	.84 – 1.29	.713	_a	_a	_a	1.12 (.08)	.98 – 1.30	.101	2.04* (.71)	1.03 – 4.04	.041
Discrimination x PRP	1.17*** (.06)	1.06 – 1.29	.001	1.00 (.04)	.92 – 1.09	.953	_a	_a	_a	.94 (.03)	.88 – 1.01	.079	1.31* (.17)	1.01 - 1.70	.042
Discrimination x RS	.91** (.03)	.85 – .98	.010	.99 (.04)	.91 – 1.06	.702	_a	_a	_a	.99 (.04)	.91 – 1.07	.757	.80** (.07)	.68 – .95	.012
Discrimination x OrgR	.95 (.08)	.80 – 1.13	.585	1.04 (.06)	.92 – 1.06	.527	_a	_a	_a	1.05 (.06)	.94 – 1.18	.376	1.03 (.09)	.87 – 1.22	.742
Age	.83 (.35)	.37 – 1.89	.662	1.09 (.51)	.43 – 2.75	.862	_a	_a	_a	.82 (.22)	.49 – 1.37	.443	3.70 (4.08)	.42 – 4.04	.237

Notes. n = 377. <sup>a</sup>Results omitted because the strata contain no subpopulation members. SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD = Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.

<sup>\*</sup>  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 1.15. Logistic Regression Analyses for SI, MDD, GAD, DBD, and SUD with Religious Involvement for Caribbean Black Girls

		SIa		-	MDD			GAD			DBD	-		SUD	
	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p	OR (SE)	CI	p
Private	,			( )			( )			( )			( )		
Religious	.84	.60 –	215	.92	.72 —	404	1.90	.90 –	000	.71**	.56 –	000	.98	.48 –	066
Practices	(.14)	1.18	.315	(.11)	1.17	.484	(.72)	3.99	.090	(.09)	.92	.008	(.36)	2.02	.966
(PRP)	` ′			· ´			` ′			` ′			` ′		
Religious	1.14	.86 –		1.15	.87 –		1.32**	1.07 –		1.43**	1.09 –		1.73*	1.04 -	
(Church)	(.16)	1.50	.366	(.16)	1.52	.339	(.14)	1.63	.011	(.20)	1.87	.010	(.45)	2.88	.035
Support (RS)	(.10)	1.50		(.10)	1.32		(.14)	1.05		(.20)	1.07		(.43)	2.00	
Organizational	.74	.47 –		.92	.67 –		.54	.25 –		.64*	.45 –		.64	.06 –	
Religiousness	(.17)	1.16	.189	(.15)	1.27	.618	(.21)	1.17	.120	(.12)	.92	.016	(.79)	7.26	.721
(OrgR)	` ′			, ,			(.21)			, ,			(.77)		
Everyday	1.24	.99 –	.063	1.27**	1.09 –	.002	.66	.36 –	.176	1.37***	1.14 –	.001	.64	.40 —	.070
Discrimination	(.14)	1.55	.003	(.10)	1.47	.002	(.20)	1.21	.170	(.13)	1.64	.001	(.16)	1.04	.070
Discrimination	1.04	.97 –	.253	1.04	.98 –	.166	1.03	.83 –	.804	1.06*	1.00 -	.044	1.19	.95 –	.125
x PRP	(.04)	1.11	.233	(.03)	1.11	.100	(.12)	1.28	.004	(.03)	1.12	.044	(.14)	1.50	.123
Discrimination	1.01	.95 –	.795	.99	.93 –	.834	1.00	.95 –	.876	.98	.93 –	.411	.90	.73 —	.346
x RS	(.03)	1.08	.193	(.03)	1.06	.634	(.03)	1.07	.870	(.03)	1.03	.411	(.10)	1.12	.340
Discrimination	.93	.84 –	.149	.96	.88 –	.387	.78	.58 –	.121	.97	.88 –	.444	1.10	.87 —	.441
x OrgR	(.05)	1.03	.149	(.04)	1.05	.30/	(.12)	1.07	.121	(.04)	1.06	.444	(.13)	1.39	.441
A 000	1.05	.56 –	.883	.88	.58 –	525	.62	.24 —	222	.97	.50 —	025	2.12	.87 —	.097
Age	(.33)	1.96	.003	(.18)	1.33	.535	(.30)	1.60	.322	(.33)	1.88	.925	(.96)	5.14	.097

Notes. n = 388.  $^an = 387$ . SI = Suicidal Ideation, MDD = Major Depressive Disorder. GAD = Generalized Anxiety Disorder. DBD= Disruptive Behavior Disorders and includes Conduct Disorder and Oppositional Defiant Disorder. SUD = Substance Use Disorders.  $p \le 0.05$ . \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 2.1. Descriptive Statistics For Key Study Variables

	T	otal	В	Boys		Girls				
			Tota	1 n = 42	Tota	al n = 90				
	n	Mean (SD)	n	Mean (SD)	n	Mean (SD)	t	df		Sig.
Age	132	13.93 (1.13)	42	13.60 (1.13)	90	14.08** (1.10)	2.29	130		.024
Baseline Depressive Symptoms	132	21.86 (6.82)	42	17.50 (5.66)	90	23.89*** (6.36)	5.56	130		< 0.001
6M Depressive Symptoms	97	20.84 (6.51)	31	17.28 (5.60)	66	22.51*** (6.26)	3.97	95		< 0.001
Baseline Private Religious Practices	107	19.45 (7.62)	34	20.56 (7.19)	73	18.93 (7.81)	-1.03	105		.306
Baseline Religious (Church) Support	108	12.04 (2.55)	34	12.65 (2.70)	74	11.76 (2.44)	-1.70	106		.092
Baseline Organizational Religiousness	105	5.98 (3.53)	33	6.90 (3.36)	72	5.56 (3.55)	-1.84	103		.068
	n	(%)	r	1(%)		n(%)	Adjusted F	df1	df2	Sig.
Baseline Suicidal Ideation High	43 (3	(100%) (32.6%)	6 (4	31.8%) 4.5%)	37	<b>90 (68.2%)***</b> 37 (28%)		1	130	< 0.001
Mid Low 6M Suisidal Idention	36 (2	10.2%) 27.3%)	20 (	12.1%) 15.2%)	16	(28%) (12.1%)	0.05	1	95	002
6M Suicidal Ideation High Mid	25 (2	100%) 25.8%) 18.5%)	1	(32%) (1%) 19.6%)	66 (68%)** 24 (24.7%) 28 (28.9%)		9.95	1	93	.002
Low  Notes 6M=six month follow up	25 (2	25.8%)	,	11.3%)		(14.4%)				

*Notes.* 6M=six month follow up. \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 2.2. Correlations Among Key Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Age	_										
2. Gender	29										
3. Public Assistance	04	04	_								
4. Intervention Participation	01	05	08	_							
5. Baseline Suicidal Ideation	.24*	33**	14	05							
6. 6M Suicidal Ideation	.19	36**	09	01	.53**	_					
7. Baseline Depressive Symptoms	.30**	46**	.01	.00	.61**	.62**					
8. 6M Depressive Symptoms	.32**	42**	14	07	.63**	.61**	.66**	_			
9. Baseline Private Religious Practices	24*	.01	.08	.14	11	.02	07	06			
10. Baseline Religious (Church) Support	14	.16	.13	05	13	04	34**	19	.08		
11. Baseline Organizational Religiousness	26*	.09	06	.13	14	03	16	03	.52**	.19	_

*Notes.* 6M=six month follow up. n = 76. \*  $p \le 0.05$ . \*\*  $p \le 0.01$ .

Table 2.3. Correlations Among Primary Study Variables for Girls and Boys

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	_	00	.05	.20	.19	.29	.11	28	25	42*
2. Public Assistance	08		06	05	13	.10	03	.06	.27	05
3. Intervention Participation	07	09		18	.02	.02	15	20	39*	.06
4. Baseline Suicidal Ideation	.14	22	01		.06	.63**	.58**	21	36	23
5. 6M Suicidal Ideation	.06	11	06	.64**		.24	.27	09	.08	.09
6. Baseline Depressive Symptoms	.14	08	06	.49**	.68**		.63**	24	56**	19
7. 6M Depressive Symptoms	.28*	26	07	.57**	.66**	.56**	_	.10	22	.19
8. Baseline Private Religious Practices	24	.09	.29*	07	7	.01	13		.14	.56**
9. Baseline Religious (Church) Support	02	.06	.14	.08	01	16	09	.05		.20
10. Baseline Organizational Religiousness	16	07	.16	06	02	10	08	.50**	.16	

*Notes.* 6M=six month follow up. Correlations for girls (n = 50) presented above the diagonal, boys (n = 26)presented below the diagonal. \*  $p \le 0.05$ . \*\*  $p \le 0.01$ .

Table 2.4. Linear Regression Analyses for Depressive Symptoms at Six Months

Variables	В	SE(B)	β	$\mathbb{R}^2$
Baseline Private Religious Practices	.03	.08	.03	.50
Baseline Religious (Church) Support	.31	.24	.12	
Baseline Organizational Religiousness	.22	.18	.12	
Age	.41	.50	.08	
Gender	-1.34	1.34	10	
Public Assistance	-3.24*	1.44	19	
Intervention Participation	-1.62	1.15	12	
Parent Family Connectedness	14	.08	22	
School Connectedness	25*	.13	22	
Baseline Depressive Symptoms	.39***	.11	.41	

Notes.  $R^2$  Adjusted  $R^2$ . n = 76. Model controlled for age, gender, Whether the family received public assistance, and whether the youth was randomized into the intervention group, parent-family connectedness, and school connectedness.

<sup>\*</sup>  $p \le 0.05$ . \*\*\*  $p \le 0.001$ .

Table 2.5. Ordinal Regression Analyses for Suicidal Ideation at Six Months

Variables	OR	SE	Wald	Lower bound	Upper Bound
Baseline Private Religious Practices	1.05	.04	1.21	04	.13
Baseline Religious (Church) Support	1.34*	.13	4.84	.03	.55
Baseline Organizational Religiousness	.99	.09	.01	19	.18
Age	.93	.24	.09	55	.40
Gender (Female)	1.46	.63	.37	85	1.61
Public Assistance	1.95	.79	.73	87	2.22
Intervention Participation	1.40	.60	.32	84	1.53
Parent Family Connectedness	.97	.04	.66	11	.04
School Connectedness	.90	.07	1.99	23	04
Baseline Depressive Symptoms	1.17**	.07	5.71	.03	.30

Notes. n = 76. 6M=six month follow up. Model controlled for age, gender, whether the family received public assistance, and whether the youth was randomized into the intervention group, parent-family connectedness, and school connectedness. \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Table 2.6. Linear Regression Analyses for Depressive Symptoms at Six Months with Interactions

Variables	В	SE(B)	$oldsymbol{eta}$	$\mathbb{R}^2$
Baseline Private Religious Practices	16	.25	20	.61
Baseline Religious (Church) Support	.24	.70	.09	
Baseline Organizational Religiousness	46	.54	26	
PRP x Gender	.15	.18	.33	
RS/CS x Gender	.06	.50	.07	
OrgR x Gender	.53	.40	.48	
Age	.52	.50	.10	
Gender	-7.82	6.55	58	
Public Assistance	-3.21*	1.42	19	
Intervention Participation	-1.25	1.21	09	
Parent Family Connectedness	15*	.08	24	
School Connectedness	25*	.13	22	
Baseline Depressive Symptoms	.41***	.11	.42	

*Notes.*  $R^2$  Adjusted  $R^2$ . n = 76. Model controlled for age, gender, whether the family received public assistance, and whether the youth was randomized into the intervention group, parent-family connectedness, and school connectedness. \*  $p \le 0.05$ . \*\*\*  $p \le 0.001$ 

Table 2.7. Ordinal Regression Analyses for Suicidal Ideation at Six Months with Interactions

Variables	OR	SE	Wald	Lower bound	Upper Bound
Baseline Private Religious Practices	1.16	.13	1.30	11	.40
Baseline Religious (Church) Support	.70	.38	.89	-1.09	.38
Baseline Organizational Religiousness	.84	.29	.36	74	.39
PRP x Gender	.92	.09	.72	26	.10
RS/CS x Gender	1.67	.28	3.43	03	1.05
OrgR x Gender	1.15	.21	.44	28	.55
Age	1.02	.26	.01	49	.53
Gender (Female)	336.97	3.65	2.55	-1.33	12.97
Public Assistance	2.41	.83	1.13	74	2.50
Intervention Participation	1.11	.63	.03	-1.14	1.35
Parent Family Connectedness	.95	.04	1.21	13	.04
School Connectedness	.92	.07	1.22	22	06
Baseline Depressive Symptoms	1.22**	.08	7.19	.05	.35
6M Depressive Symptoms	1.07	.07	1.09	06	.21
Baseline Suicidal Ideation (Low)	.21	.97	2.64	-3.49	.33
Baseline Suicidal Ideation (Mid)	.38	.77	1.60	-2.49	.54

*Notes.* n = 76. 6M=six month follow up. Model controlled for age, gender, whether the family received public assistance, and whether the youth was randomized into the intervention group, parent-family connectedness, and school connectedness. \*\*  $p \le 0.01$ . \*\*\*  $p \le 0.001$ .

Figure 1. Conceptual Model for Study 1: Suicidal Ideation and Psychiatric Disorders among a Representative Sample of Black Adolescents

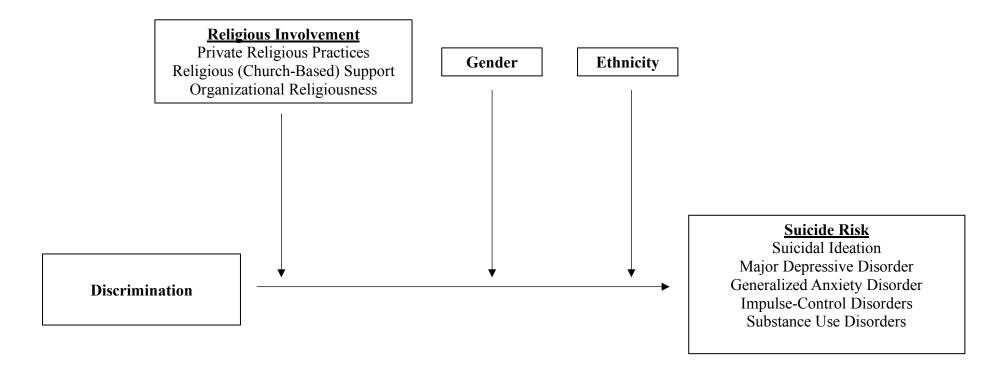
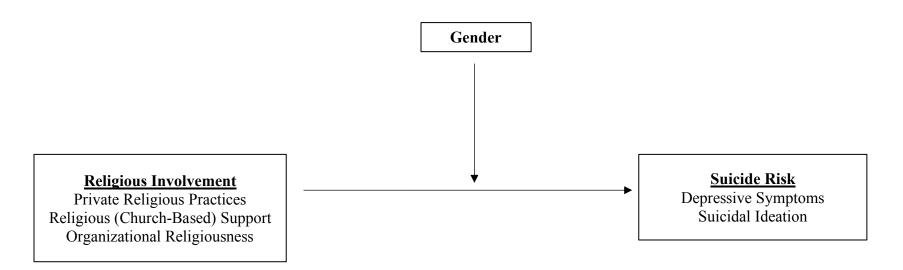
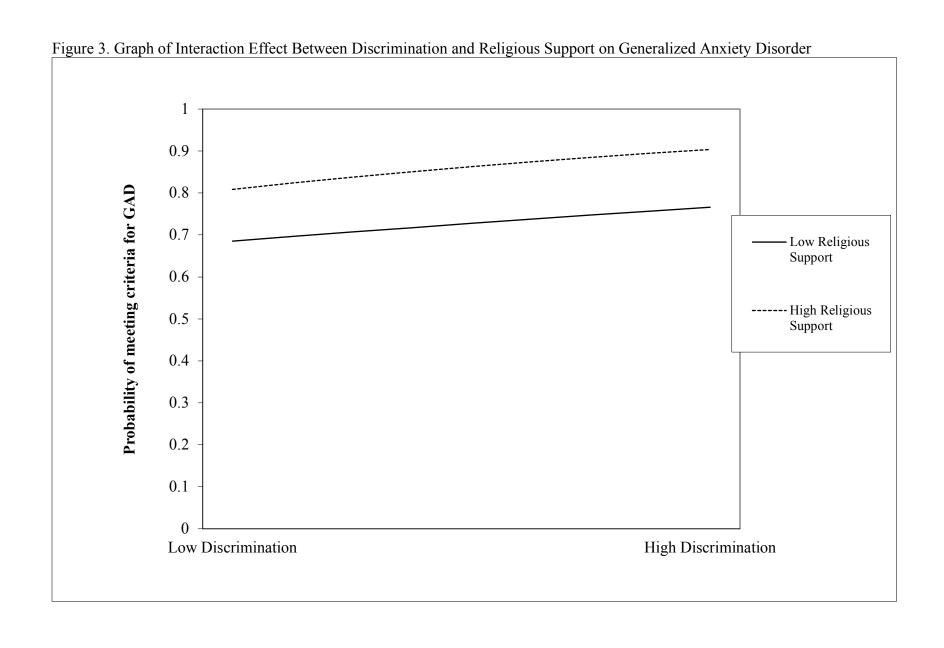


Figure 2. Conceptual Model for Study 2: Depressive Symptoms and Suicidal Ideation among Black Adolescents with Interpersonal Problems





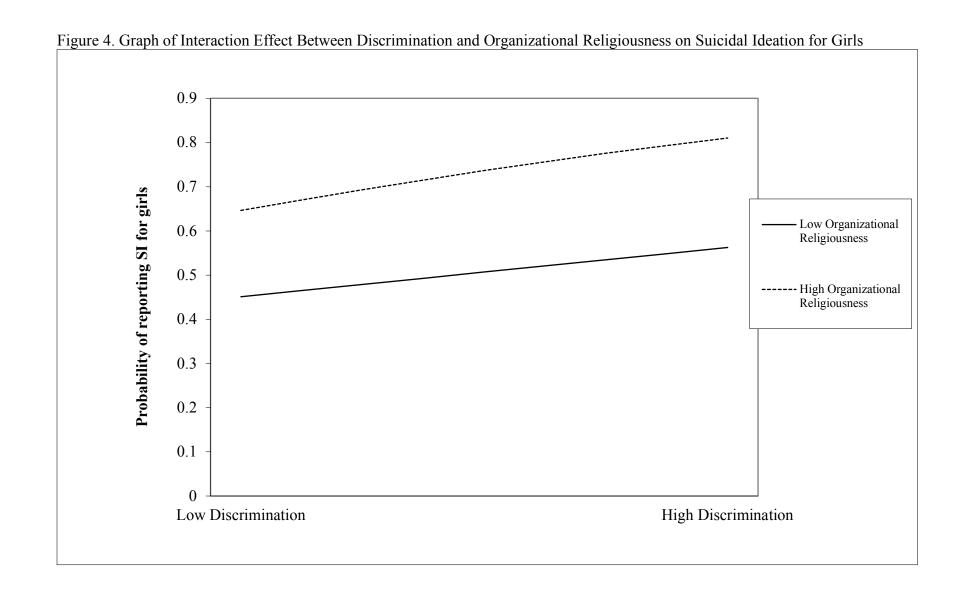


Figure 5. Graph of Interaction Effect Between Discrimination and Private Religious Practices on Substance Use Disorders for Caribbean Black Youth

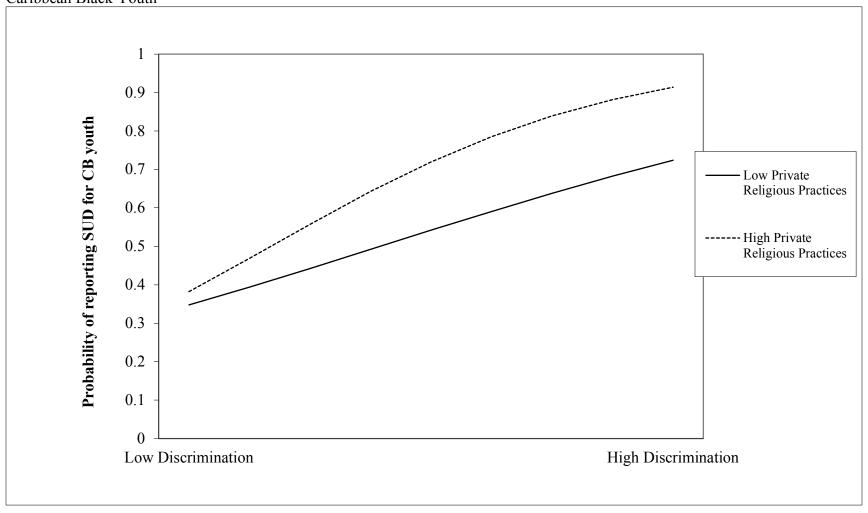


Figure 6. Graph of Interaction Effect Between Discrimination and Religious Support on Substance Use Disorders for Caribbean Black Youth

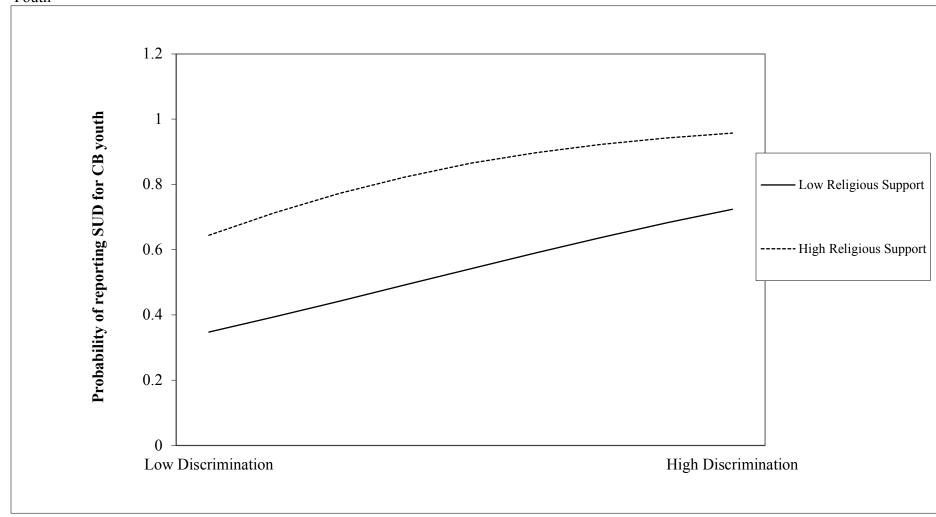


Figure 7. Graph of Interaction Effect Between Discrimination and Organizational Religiousness on Substance Use Disorders for Caribbean Black Youth

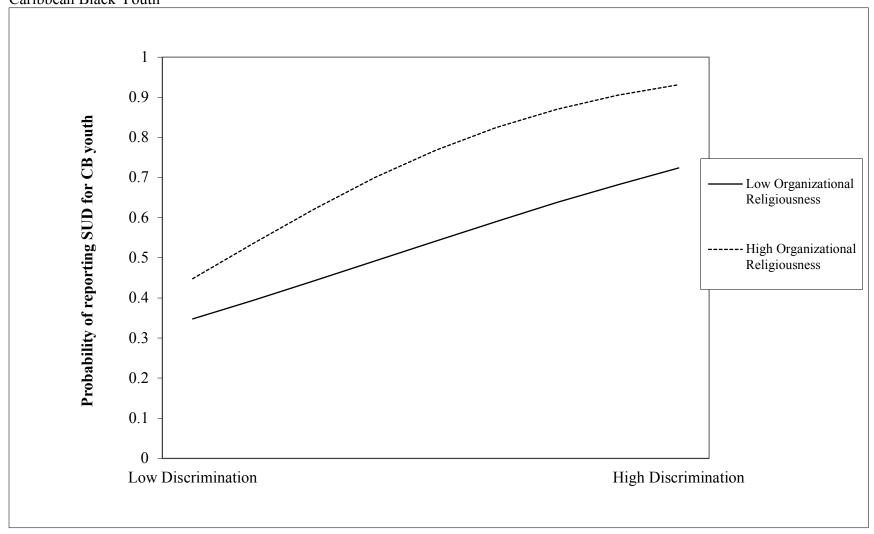


Figure 8. Graph of Interaction Effect Between Discrimination and Organizational Religiousness on Suicidal Ideation for African American Girls

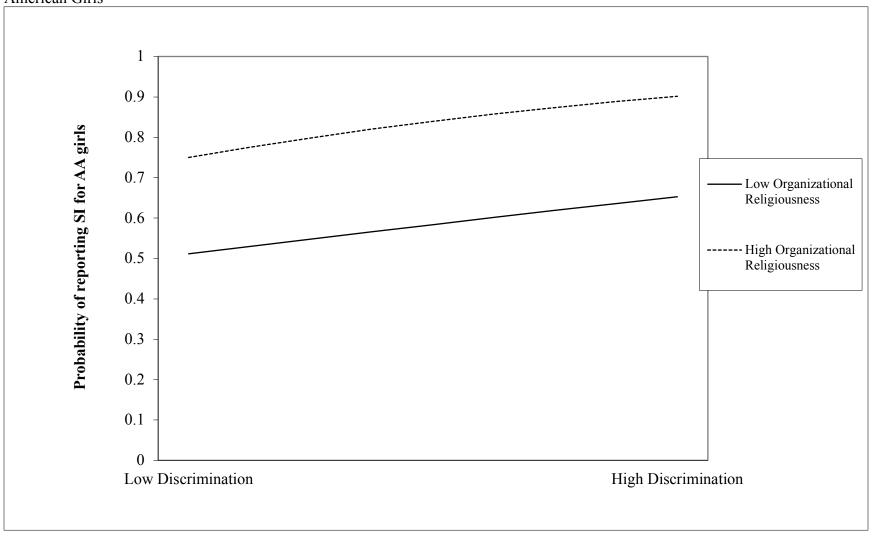
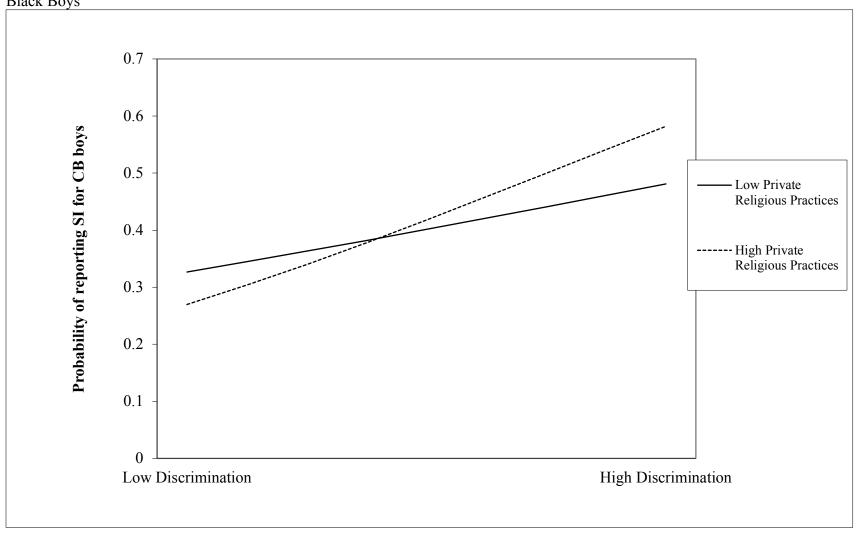


Figure 9. Graph of Interaction Effect Between Discrimination and Private Religious Practices on Suicidal Ideation for Caribbean Black Boys



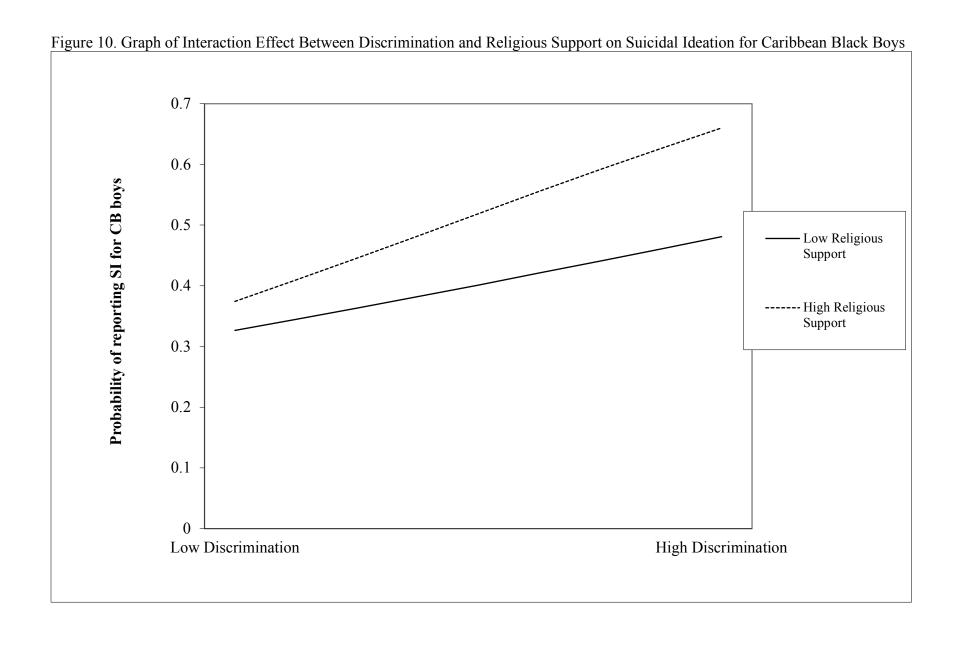


Figure 11. Graph of Interaction Effect Between Discrimination and Private Religious Practices on Substance Use Disorders for Caribbean Black Boys

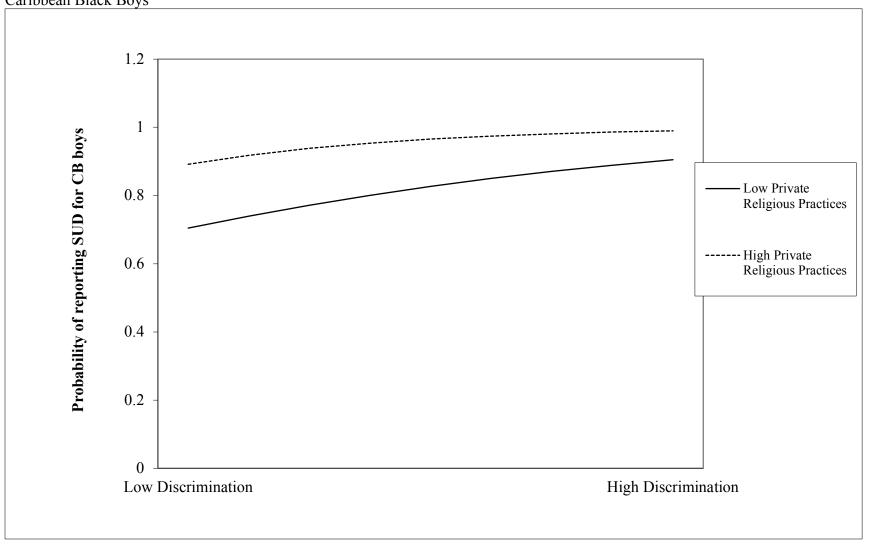


Figure 12. Graph of Interaction Effect Between Discrimination and Religious Support on Substance Use Disorders for Caribbean Black Boys

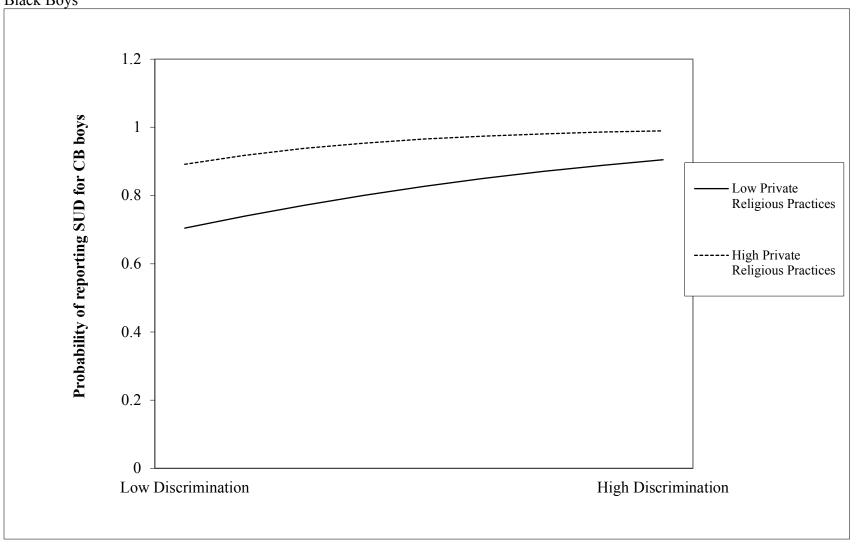
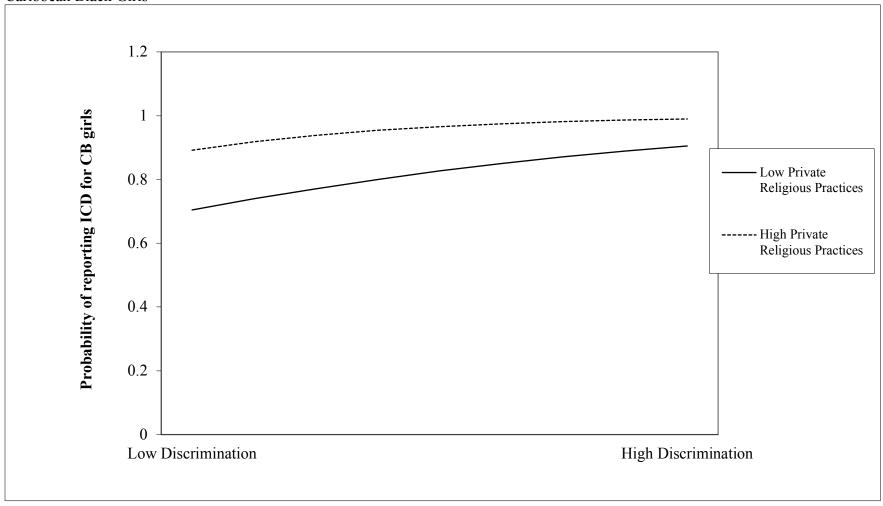


Figure 13. Graph of Interaction Effect Between Discrimination and Private Religious Practices on Disruptive Behavior Disorders for Caribbean Black Girls



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