CURRICULUM VITAE


Chaz Mailey


EDUCATION

2011   Indiana State University Terre Haute, Indiana
       Psy.D. Candidate Clinical Psychology

2007   Ball State University, Muncie, Indiana
       M.S., Sport and Exercise Psychology

2004   Wabash College, Crawfordsville, Indiana
       B.A., Psychology

SUPERVISED CLINICAL EXPERIENCE

2010–2011    Veterans Administration Illiana Health Care System
             Danville, Illinois
             Pre-Doctoral Psychology Intern

2009–2010    Veterans Administration Illiana Health Care Systems
             Danville, Illinois
             Graduate Therapist

2008–2010    The Center for Children's Services
             Danville, Illinois
             Graduate Therapist

2007–2009    Indiana State University Psychology Clinic
             Terre Haute, Indiana
             Graduate Clinician

AFFILIATIONS AND MEMBERSHIPS

Member, Psychology Graduate Student Organization, Indiana State University
Student Member of the American Psychology Association

RACIAL IDENTITY AND RELIGIOUSNESS: ROLE OF RELIGION AND RACIAL

IDENTITY ON SUBSTANCE USE IN

AFRICAN AMERICAN COLLEGE STUDENTS

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Chaz D. Mailey

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# COMMITTEE MEMBERS

Committee Chair: Thomas Johnson, Ph.D.

      Professor

      Indiana State University

Committee Member: Patrick Bennett, Ph.D.

      Associate Professor

      Indiana State University

Committee Member: Liz O'Laughlin Ph.D.

      Associate Professor

      Indiana State University

**ABSTRACT**

The present study sought to explore the relationships between Black racial identity, religiosity, and substance use in African American college students. Religiosity has commonly been identified as a protective factor against substance use for many ethnic groups, and historically religion has played a significant role in the lives of African Americans. Surprisingly, some research suggests that while important, religiosity may not be as strong of a protective factor against abuse or excessive consumption of substances for African Americans as it is for other ethnicities (Amey, Albrect, & Miller, 1996). It has been suggested that for African Americans, a strong ethnic identity can help moderate drinking (Klonoff & Landrine, 1999; Pugh & Bry, 2007). One hundred and eighty-four African American students recruited from three Midwestern predominantly White universities, one Midwestern predominantly Black university and one Historically Black Southern university completed an online questionnaire consisting of the Cross Racial Identity Scale (CRIS); the Religious Involvement subscale from the Brief Multidimensional Measure of Religion and Spirituality (BMMRS), measures of alcohol and marijuana use, and the Young Adult Alcohol Problems Screening Test (YAAPST). As hypothesized, racial identity and religiousness/spirituality were related with substance use in African American college students. The secondary hypothesis that black racial identity would be a better predictor of substance use than would religiousness/spirituality was not supported. For African American students in the current sample, religiosity was a better predictor of substance use than was Black racial identity. However, several differential relationships were observed

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between males and females. Overall, the study contributes support to the literature regarding how

Black racial identity and religiosity influence substance use in African Americans. Limitations,

significant findings, and possible directions for future research are presented.

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CHAPTER I

**Introduction**

Adolescent substance use/abuse has been a problem for many years and, it can have a number of costs to the adolescents, their families, and society in general (Amey, Albrecht, & Miller, 1996; Albrecht Amey, & Miller, 1996; Nishimura, Hishinuma, Else, Goebert, & Andrade, 2005). Research has consistently shown that adolescents who use drugs and alcohol experience many more negative life events. They are more likely to engage in criminal activity, have acute and/or chronic health problems, have comorbid mental illness, and experience incidents of school difficulties when compared to their non-substance using counterparts (Crisp, Williams, Ross, & Timpson, 2006; Miller, Lykens &, Quinn, 2007; Nishimura et al., 2005). There are also a number of economic costs that must be considered when one takes into account all of the property damage, vehicular accidents, theft, and other criminal acts that are committed by intoxicated youth. Perhaps the most significant of all these negative outcomes are emotional costs to the individuals and/or their families. Adolescents who abuse substances have a greater likelihood of being involved in accidents resulting in serious injury or death, accidental death as a result of overdose, or suicide.

Many African American[1] youths possess risk factors that are often found contribute to likelihood of problems with substance abuse, such as having parents with less educational attainment, living at or below the poverty line, and coming from single-parent homes. However, researchers and national statistics demonstrate that Black youth are actually less likely to abuse illegal substances than are their Caucasian equivalents. When accounting for these risk factors, research demonstrates that the differences in illegal substance use become even more pronounced between African American and Caucasian young people.

Religiousness and spirituality have historically been a significant aspect of the Black experience in America[2] prior to, during, and following the era of slavery (Amey et al., 1996; Curtin, Feierman, Thompson, & Vansina, 1995; Hines & Boyd-Franklin, 2005; Hunt & Hunt, 2000; Sexton, Carlson, Siegal, Leukefeld, & Booth, 2006). In particular, the practice of Christianity afforded many Blacks the opportunity to live, thrive, and survive in racially hostile environments (e.g., slavery, Jim Crowe era, the Civil Rights movement). The church not only became a place of worship, but also served multiple roles in the lives of its members. It was the hub of social activity, a center for community planning, and a place of relief from the oppression that many Blacks faced on a regular basis. Thus, many believe that religion played/continues to play a major role in abstinence from using illicit substances and alcohol for African Americans.

Ethnic and racial identity is a topic that has been intensely researched for a number of years (Cross, 1978, 1991; Phinney, 1992; Phinney & Ong, 2007; Sellers, Smith, Shelton, Rawley, & Chavous, 1998; Vandiver, Cross, Worrell, & Fhagen-Smith, 2002; Vandiver, Fhagen-

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[1] The terms *African American* and *Black* are used interchangeably to describe those individuals of African origin who reside in the United States and are familiar with American culture

[2] When referring to the United States of America, the paper will use *America,* the United States, and the United States of America interchangeably. This is not to suggest that the United States is the *only* America.

Smith, Cokley, Cross, & Worrell, 2001; Worrell & Gardener-Kitt, 2006). Less research has been conducted that has examined the ways in which racial and ethnic identity influences substance use. However, existing findings indicate that as an individual has a stronger, better developed ethnic identity, the amount of substances that individual will use is reduced or completely inhibited (Herd & Grube, 1996; Pugh & Bry, 2007; Taylor & Jackson, 1991a, 1991b). In theory, as an individual develops stronger cultural bonds, he or she potentially begins to reject what might be viewed as an activity of the dominant culture, or does not want to be viewed negatively by the dominant culture because of the stereotypes about African Americans and substance use (Pugh & Bry, 2007).

Due to the relative paucity of information regarding racial identity and substance use, the purpose of the current study was to explore the influence of Black racial identity and religious/spiritual involvement on substance use behaviors among African American college students. It was hypothesized that both religiosity and Black racial identity would be related to substance use, but racial identity would be a better predictor of substance use behaviors than would religiousness/spirituality. The present study had hoped to explore whether or not region of the country, (i.e. Southern versus Northern United States[3]) had any impact on these relationships. However, due to the limited number of participants hailing from the South, regional differences were not assessed.

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[3] When discussing the differences between the Northern and the Southern parts of the United States. In the current study, the North will encompass the Mid-west, the West Coast, and the North East Coast. When referring to the South, this will encompass states such as Mississippi, Alabama, Georgia, etc.

CHAPTER II

**Literature Review**

**Substance Use/Abuse in College Students**

Substance use will be defined as the consumption, smoking, or use of any illegal or legal substance with the purpose of obtaining an altered state of consciousness, or high. For a number of young people, college provides an opportunity to experiment with alcohol and various drugs. According to the Monitoring the Future Study (an ongoing study of young people and substance use patterns), approximately 84% of all college students reported some alcohol use within the past year and about one third of college students reported some marijuana use (Johnston, O'Malley, Bachman, & Schulenberg, 2005). They also found that approximately 66% of full-time college students reported past month alcohol consumption and about 19% of students reported past month marijuana use.

Researchers have found that full-time college students are more likely than their peers to have consumed alcohol in the past month, drink heavily, and engage in binge drinking (SAMHSA, 2007). Importantly, statistics indicate that two out of every five college students partake in binge drinking. Repeated binge drinking is a more serious concern because binging is related to significant alcohol-related problems later in life, like alcoholism, cardiovascular disease, liver damage, and cognitive impairment (Johnston et al., 2005; Pugh & Bry, 2007). Binge drinking has often been defined as consuming excessive quantities of alcohol with the

intention of becoming intoxicated. A more formal definition of binge drinking in American

culture is consuming 5 or more standard units (beer - 12 fl oz; wine - 4.5 fluid oz; 80 proof liquor

- 1.5 fl oz) of alcohol in one day within a 1 – 3 hour period (Johnston et al., 2005; Kieffer,

Cronin, Gawet, 2006).

**Reasons for Substance Use**. There are a number of reasons that college students engage

in substance use. One hypothesis is that college students use drinking as a means to reduce

psychological and emotional discomfort (Kieffer et al., 2006; Novak, Burgess, Clark, Zvolensky,

& Brown 2003). Because college places an enormous amount of strain on the emotional and

psychological well-being of students, many students turn to substances as a means of coping

with stress, and as a way to flee from or circumvent their expectations and responsibilities

(Kieffer et al., 2006). Substances become a form of escape from a poor mood and undesirable

life circumstances, a way to avoid pain, and potentially a method to erase bad memories or avoid

taking responsibility for one's actions if intoxicated enough. This has often been referred to as

the "self-medication hypothesis." The disproportionate consumption of substances has come to

serve as a coping mechanism for perceived adversity (Novak et al., 2006).

Another hypothesis suggests college students engage in substance use as a means of

socialization. Historically, many illicit substances that are abused today have their origins in

social or religious settings. In some cultures, substances that would be considered "illegal" in the

United States were or still continue to be regarded as a normal, appropriate aspect of everyday

life. For example, strong hallucinogenic drugs are still used by some tribes in Central and South

America in religious ceremonies, festivals, and/or gatherings. Because of the many social

origins, college students develop certain expectations about using drugs and/or consuming

alcohol in a social context (Kieffer et al., 2006). One expectation that many college students have

about substances, alcohol in particular, is that it will serve as a "social lubricant." The expectation/belief is that they will be afforded the opportunity to meet and make new friends, it will become much easier to talk to people, and they will experience a greater level of comfort in potentially awkward social situations as they become more intoxicated. College students also develop expectations that using alcohol as a social lubricant will increase the likelihood of having a romantic encounter (Kieffer et al., 2006). However, if used frequently or excessively, drug and alcohol can have a number of adverse effects on the lives of those individuals.

**Negative Consequences of Alcohol and Marijuana Use.** Due to the potential negative consequences, alcohol use and abuse has been an area of significant concern for adolescents and young adults, particularly in college student populations (Gillespie, Holt, & Blackwell, 2007; Kieffer et al., 2006). Frequent and excessive alcohol consumption can lead to unsafe sexual practices, such as sexual promiscuity, not using protection during sex, and/or sexual assault. It can have a significant adverse effect on educational attainment by decreasing academic grade point average and possibly leading to academic suspension or expulsion (Kieffer et al., 2006). Excessive alcohol consumption also has significant adverse effects on an individual's physical health. The individual may suffer liver or brain damage, long-term cognitive deficits, heart problems, and potentially be more susceptible to injury (e.g. falls). Individuals who abuse drugs and alcohol are also more likely to have legal problems, including encounters with the authorities, arrests, and/or to time spent in jail (Gillespie et al., 2007; Kieffer et al., 2006). According to the Federal Bureau of Investigation, over 1.25 million arrests were made in 2004 for drug abuse violations and according to the Office of National Drug Control Policy (2004), the federal government spent over 12 billion dollars in 2004 to help control drug use. People that

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consume excessively may experience even more dire consequences, like permanent physical disability or even death (Gillespie et al., 2007; Kieffer et al., 2006).

While some researchers suggest that infrequent marijuana use does not cause long-term harm to the body, there are a number of negative side effects associated with excessive use (Health Risks of Marijuana Use, 1996; Kuhn, Swartzwelder, & Wilson, 1998). Individuals who regularly smoke marijuana, particularly at higher doses, can experience intense anxiety and panic, and it can also lead to extreme paranoia (Health Risks of Marijuana Use, 1996; Kuhn et al., 1998). Marijuana use also has a number of short-term adverse effects, including deficiencies with memory and learning, impairments in problem solving and thinking, cognitive distortions, and an increase in heart rate. Not only can an individual experience these problems, but because marijuana leads to deficits in complex coordination and judgment, it also increases the individual's chances of inadvertent injury or self-destructive behavior (Kuhn et al., 1998).

**African Americans and the Risks for Substance Use.** The use of alcohol and other illicit drugs is prevalent among all ethnic groups in the United States. However, research consistently shows that there are some groups who use significantly more substances. According to the Substance Abuse and Mental Health Services Administration (2007), 9% of all African Americans 12 years or older reported some illicit drug use over the past year, with marijuana being the illicit substance used most frequently. This actually places African Americans as the second highest users of illicit substances when compared to other ethnic groups. Only Caucasians use illicit drugs more frequently. However, research has consistently shown that African Americans tend to consume significantly less alcohol when compared to Caucasians, Native Americans, and Hispanics (Amey et al., 1996; Albrecht et al., 1996; Johnston et al., 2005; SAMHSA, 2007). This is somewhat surprising considering that African American youths have a

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number of risk factors often associated with substance use and potential substance abuse (Amey et al., 1996; Herd & Grube, 1996).

When compared to their White counterparts, African American youth are more likely to have parents with less educational attainment, to live at or below the poverty line, and to come from single-parent homes (Amey et al., 1996). These factors have all been significantly related to increased substance use in other groups. Despite the lower levels of alcohol use, African Americans who do drink report equal or higher levels of heavy drinking and more regular marijuana use when compared to other groups. Given the relationship between heavy drinking and drug use and more serious problems with substance abuse later in life, this is a significant concern (Caetano, et al., 1998; Johnston et al., 2005).

**Religion in the Lives of African Americans: From Africa to the Americas**

There is considerable literature that describes the ways in which religion has influenced the history of Blacks in America. For many African Americans, religion is considered to be a central part of the self-concept and self-identity (Amey et al., 1996; Hunt & Hunt 2000; Sexton et al., 2006). In order to provide the appropriate background, it is important to include a brief history of American slavery and the impact of religious involvement. It is perhaps best to begin with the practice of "traditional African religions."

**Traditional African Religious Practices.** The discussion of African religious tradition should be preceded by a brief clarification. The history of Africa is rich and diverse, as are the religious practices of those living on the continent and within various countries. Therefore, when discussing "African religion," this paper will be referring primarily to the religious practices originating in West Africa along the coastal regions, due largely to the fact that it is the area from which a majority of the slaves were brought to America. Furthermore, it is the region to which

many African Americans today can trace their ancestry (Curtin, et al., 1995; Hunt & Hunt, 2000).

As slaves were brought from Africa to America, a majority of slaves brought aspects of what is commonly referred to as *traditional African religion* or African religious practices. Although this term could refer to a plethora of religious traditions from the African continent, there are a number of shared qualities. Some of these shared religious traditions include: the use of story-telling, ancestor worship and elder veneration, nature worship (i.e. the deification of natural objects and using nature in religious ceremonies), communal celebrations, and central religious leaders or figureheads who serve to direct the practice of the traditions (Curtin et al., 1995). However, after arriving in the Americas, overt participation in traditional African religions was often strongly prohibited by the slave masters. If caught participating in these traditions, one could find him or herself enduring severe punishment, up to and including death.

There were several reasons or motivations for such restrictions on religious practice. One reason was that many slave owners and traders were "Christians," and therefore it would be thought of as blasphemous to allow their slaves to continue practicing various forms of "witchcraft" and "paganism." Another perhaps more insidious motivation to control and curb traditional religious practices was that slave owners did not want to lose their place of dominance over their servants. If the slaves were allowed to regularly participate in the religions of their homelands, it might cause slaves to feel empowered, emboldened, and perhaps rise up against their masters. This would eventually come to pass in several islands in the Caribbean, most notably Haiti.

**African Americans and the Christian Tradition.** Regardless of their masters's motivations to prevent them from practicing traditional African religions, scores of Black slaves

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began to show an affinity towards other forms of religious practice and, given the scarcity of religious traditions in the Americas at the time, the religion most readily available to slaves was Christianity. Initially, the idea of having a slave practice and share the traditions of his or her master was met with some resistance. There were fears that allowing slaves to practice Christianity would somehow make them "equal" to their masters. Yet over time, slave masters believed this to be the "lesser" of two evils, allowing slaves to practice Christianity rather than traditional African religious practices. However, a small caveat is in order for this assertion.

Although many denominations of Christianity prohibited the practice of traditional African religious rituals, others in certain regions tended to be less strict and, as a result, hybrid forms of African religious traditions and Catholicism began to emerge in areas of the Caribbean and the Americas, for example the practice of voodoo in Haiti. Even though many of its most defining characteristics began to fade, one can now see how some aspects of the African religious tradition filtered into and became intertwined with many Christian traditions and helped form the Black church to which we have become accustomed today. There still tends to be a central religious figurehead, elders within the church are often held in high esteem, and music continues to serve as a form of cathartic expression.

**The Role of the Black Church.** Historically in the United States, most health and social services were provided by churches and religious institutions, regardless of the race of its attendants (Sexton et al., 2006). In fact, until the end of the 19th century, religious organizations served as the lone provider of all social services (Hunt & Hunt, 2000; Sexton et al. 2006). In other words, if one was in need of mental health care and/or counseling, having marital disputes, or in need of some sort of financial assistance, that individual turned toward religious organizations and the religious figurehead. The church then took on an even more important

meaning in the lives of African Americans. During the era of slavery the church and the use of spiritual hymns not only served a cathartic function, but hymns were also used to organize and orchestrate escape attempts by informing others of meeting places or the approximate time an escape was going to occur (Hunt & Hunt, 2000). Also during the slave era, Christianity and the Black church began to symbolize a connection to the Israelites of the Old Testament. This can be identified if one looks at some of the old spirituals where the lyrics often reference "returning to old Canaan land," and "chariots coming forth to carry me home" (Hunt & Hunt, 2000). The slaves had now become the Israelites in a new land, and the "promised land" was often not far away in their lyrics or their minds.

For many Blacks, the church was not just viewed as a place of religious worship, and much of its importance in the lives of African Americans can be attributed to its nonreligious function (Hines & Boyd-Franklin, 2005). One of the most significant aspects of the church in the lives of Blacks, in addition to provision of social services, was that it also served as the gathering place for most social activity. The church was a relatively safe place to meet and socialize, to become involved in politics, to plan events, and to find release from the shared oppression that many Blacks experienced, not just in the past, but even up to and until recent times (Amey et al., 1996; Hines & Boyd-Franklin, 2005; Hunt & Hunt, 2000; Sexton et al., 2006). It was one institution during that time that allowed for upward mobility and allowed members, especially pastors, to have a significant influence on the behaviors and activities of their followers (Hunt & Hunt, 2000; Sexton et al., 2006).

**The "Semi-Involuntary" Thesis of Religious Participation**. Previous research on the Black church suggests that there might be differences in the practice and participation in religious services due largely in part to region of the country (Hunt & Hunt, 2000, 2001).The

Great Migration of African Americans from the rural areas of the Southern United States to urban centers in the Midwest, North, and West took place between 1913 and 1930, and some would say even up until 1960 (Hunt & Hunt, 2000; 2001). As Blacks began moving to these areas to avoid the continued oppression following the Civil War and into the Jim Crowe era, they brought their strong religious faith with them. However, as they began to settle in these various regions, African Americans discovered that there were many more (relatively speaking) economic and political prospects for entertainment, social activism, and socialization in general (Hunt & Hunt, 2000).

Because the North tended to be more "institutionally differentiated" (Hunt & Hunt, 2000, p. 588), many African Americans who migrated North and still considered themselves to be religious, but there was greater variability in the ways in which African Americans could become socially involved and church attendance thus became more voluntary in the Northern U.S. (Hunt & Hunt, 2000). Whereas in the South, Hunt and Hunt suggest that there continues to be a relatively greater occurrence of segregation and religious participation continues to be the primary center of social activity for many African Americans.

**Racial and Ethnic Identity**

Race and ethnicity are terms that have often been used quite interchangeably to describe an individual's group affiliation based on some set of defining characteristics. Therefore a brief definition and explanation for the use of race and ethnicity is in order. Some would argue that there is a genetic basis for the definition of race and that members of each race (e.g. Latinos vs. Asians) have genetically discrete features that somehow make them biologically distinct from one another (Rushton & Jensen, 2005). However, most would argue that race is largely a socially constructed concept that was created so one group could be more easily differentiated from

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another group (Cross, 1978; Sellers et al., 1998; Vandiver, Cross, Worrell, & Fhagen-Smith, 2002; Vandiver, Fhagen-Smith, Cokley, Cross, & Worrell, 2001). For the purposes of this investigation, the socially constructed classification of race will be utilized whereby race will be defined as a category or classification of humans who share many unique physical characteristics that differentiate them from other groups. Ethnicity can be defined as groups of individuals classified based upon their shared racial, regional, religious, linguistic, and cultural backgrounds or origins.

Racial identity will be defined as "a sense of group or collective identity based on one's perception that he or she shares a common racial heritage with a particular racial group" (Worrell & Gardener-Kitt, 2006, p. 295). This is somewhat different from ethnic identity which is defined as "feeling of belonging to one's group, a clear understanding of the meaning of one's [group] membership, positive attitudes towards the group, familiarity with its history and culture, and involvement in its practices" (Phinney & Ong, 2007, p. 272). However, it should be noted that ethnic identity is not the focus of the present investigation.

**African American or Black Racial Identity**

Because the collective and historical life experiences of African Americans are significantly different from other minority ethnic groups in the United States, the emergence of the Black racial identity is a very complex process (Sellers et al., 1998). It would be unfair to imply that other ethnic groups have not been subjected to significant discrimination and/or oppression in the United States. However, the Black experience of discrimination in America has a rather distinct quality to it (Cross, 1978; Pugh & Bry, 2007; Sellers et al., 1998). Sellers et al. (1998) best described the unique Black experience in the United States:

"While the worthiness of other ethnic groups has often been questioned upon their arrival in American society, no other groups' humanity was denied them by the U.S. Constitution. African Americans were defined legally as property by the United States government. For nearly 100 years after the end of slavery, laws were enacted [Jim Crowe] with the expressed purpose of making social contact between Whites and African Americans illegal. Such laws effectively relegated African Americans to the status of second-class citizens" p. 18.

What this suggests is that historically, African Americans were identified as "chattel" or "3/5ths of a human" before they were ever classified or seen as actual people. Additionally, official laws were created that intentionally prohibited African Americans from receiving services, schooling in certain areas, and many rights in general. For example, the freedom to eat in certain restaurants, the ability sit in certain places on buses, and making it more difficult for African Americans to receive fair and equal treatment in the court system. Consequently, African Americans had to adopt a very unique identity whereby aspects of African traditions were intertwined with the traditions and practices of dominant American society. What resulted was an emotional and psychological union of a diverse group of individuals who differ greatly in their cultural expressions and experiences (Cross, 1991; Sellers et al., 1998; Vandiver, 2001).

For many African Americans a system has already been put in place where they are collectively identified as "Black," regardless of the groups with which they choose to associate. To put it another way, even if an African American were to identify him or herself as an individual who is "a psychologist" or "a woman," there is no escaping that that person will also likely be seen and treated as a "Black psychologist," or a "Black woman" by others. Some believe that the Black racial identity is shaped by the feelings of shared oppression that Blacks have historically endured in America (Sellers et al., 1998), while others view racial identity as evolving by a form of self-comparison to the dominant American Western culture (Cross, 1991;

Vandiver, 2001). For the current investigation, both are viewed as contributors to the development of the Black identity.

**Cross's Nigrescence Model.** William Cross and colleagues have suggested that there are two loosely interconnected components of racial identity: 1) an individual's *personal identity (PI),* and 2) his or her *reference group orientation (RGO)* (Cross, 1991; Vandiver et al., 2001). While *personal identity* can be seen as the more general traits or personality characteristics that are unique to an individual, *reference group orientation* refers to social membership and social affiliation based on the group with which an individual prefers to identify (Vandiver et al., 2002). For example, it is suggested that an individual's psychological well-being and self-esteem are closely tied to PI, but RGO has little impact on these two factors (Worrell et al 2004). However, if someone who is Black has a particularly negative view about what it means to be Black, then PI and RGO become entangled. In many ways the *nigrescence* model proposed by Cross suggests that personal identity plays a relatively small part in Black Identity development because being considered Black is, in fact, a group classification that in turn comes to take on individualized meaning (Cross, 1991; Sellers et al., 1998; Vandiver et al., 2002).

According to Cross (1991), nigrescence "is a re-socializing experience; it seeks to transform a preexisting identity (a non-Afrocentric identity into one that is Afrocentric)" (p. 190). Initially, Cross's theory proposed that the formation of a Black racial identity was similar moving from childhood to adolescence to adulthood. Becoming "Black" was a developmental process where an individual moved from an anti-Black/Pro-White point of view to one that is pro-Black through five stages: Pre-encounter, Encounter, Immersion-Emersion, Internalization, and Internalization-Commitment. He previously suggested that Black racial identity development represented a metamorphosis or transformation wherein each stage could represent a unique

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identity (Cross, 1978). However, in *Shades of Black*, Cross (1991) attempted to address that Black racial identity appeared not to be formed through developmental stages. Instead, he and colleagues suggested that Black racial identity has multiple dimensions and that all Blacks have aspects of Pre-Encounter, Immersion–Emersion, and Internalization within their identities, but that these attitudes shift in which identity holds greater importance at some point in time (Cross, 1991; Sellers, Rowley, Chavous, Shelton, & Smith, 1997; Sellers et al., 1998; Vandiver et al., 2001; Vandiver et al., 2002; Worrell, Vandiver, & Cross, 2004). Thus, the stages in Cross's model of Black racial identity are best viewed as overarching themes (Vandiver et al., 2002). In many ways, nigrescence can be viewed as multidimensional with the different dimensions becoming more salient at various points in the person's life based upon the interactions that he or she has with others or the environment.

In his revised, re-conceptualized model, Cross concludes that there are four stages of African American racial identity: Pre-encounter, Encounter, Immersion-Emersion, and Internalization (Cross, 1991; Vandiver, 2001). A fifth stage, Internalization-Commitment, was so similar to the Internalization stage that it was subsequently collapsed into the fourth stage (Cross, 1991).

  ***Pre-Encounter.*** The first stage in Cross's model of Black racial identity development is *Pre-Encounter* (Cross, 1978; 1991; Vandiver et al., 2001). Pre-encounter is a complex integration of multiple attitudes and characteristics that African Americans have about themselves. It is posited that in the Pre-encounter phase, African Americans hold attitudes about race that fall on a sort of continuum ranging from low race salience (i.e., assimilation), to misunderstanding Black culture, to employing anti-Black sentiments (Cross, 1991; Vandiver et al., 2001). An individual who has low-salience to race (assimilation) is not denying that he or she

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is Black, but is suggesting being Black does not play a significant role in his or her day-to-day existence or experiences. Individuals with low-salience for race do not believe that being Black has anything to do with their personal well-being, their sense of satisfaction, or how they relate to society (Cross). Rather, individuals who report high levels of assimilation give much more credence to other aspects of the self than their "Blackness." This could be their religion, the lifestyle they have chosen, or their choice of a profession (Cross). Low-salience for race might be viewed as the African American individual adhering to more traditional Western Eurocentric values (e.g. rugged individualism, free will, etc), or assimilation. Another attitude on the Pre-encounter stage continuum is *Miseducation*. Miseducation refers to an individual's own perception of his or her race is distorted by information gleaned from other sources (Cross; Vandiver et al). This can potentially lead individuals to hold or internalize negative opinions of what it means to be Black and might lead individuals to doubt their self-worth (Vandiver et al.)

It is also in this phase that some African Americans may exhibit a form of "Black self-hatred" whereby individuals come to hate themselves because of their race (Cross, 1978, 1991; Vandiver et al., 2001; Worrell & Gardener-Kitt, 2006). Vandiver and colleagues (2001) suggest that Black self-hatred is the result of quite excessive misinformation about what it means to be Black. The individual holds strong negative feelings about being Black based primarily upon biases and stereotypes, and therefore may make attempts to distance him or herself from other African Americans to avoid these negative feelings or being perceived negatively by the dominant group (Cross, 1991). Researchers have found that individuals who score high on the Pre-Encounter Self-hatred subscale demonstrate poor ego identity development, anxiety, feelings of inferiority, a lack self-acceptance, and deficits in self-esteem (Vandiver et al., 2001).

Additionally, scoring high on the self-hatred subscale has been linked to depression, interpersonal difficulties, engaging in asocial behaviors, and committing violent crime.

*Encounter.* The second phase of Black racial identity development (*Encounter*) involves the experience of an event or series of encounters that causes an individual to reconsider his or her current reference group orientation (Cross, 1991; Vandiver et al., 2002). The encounter phase of Black racial identity is like a transformation where suddenly race becomes more salient and an individual now must make a decision about what he or she will do with this new information.

This transition occurs when an African American is exposed to some incident that brings to light that they are somehow different from the Caucasian or other non-Black counterparts with whom they typically identified or interacted. For example, when a group of young people of varying racial/ethnic backgrounds are spending time together and one member of the group uses a racial epithet or makes racially insensitive remarks/stereotypes, it causes one of the members in the group to feel singled out or isolated. Another example might be an African American witnessing racial discrimination first-hand, like the strong negative reaction to Barack Obama being the first Black president, and experiencing the psychological tension that is created within. In these two examples, an African American who may have been unaware of or able to avoid dealing with race in the past is suddenly forced to reassess the current self.

Cross (1991) proposes that the encounter is a "shattering" of the individual's current identity or worldview that compels the individual to move toward a re-conceptualization or a new way of viewing the self. The individual must now reexamine his or her stance on issues relating to race or being a part of a racial group. Cross suggests that the Encounter involves two steps: 1) experiencing and processing the encounter and then 2) subsequently personalizing the incident. It is at this time that the individual may make a conscious decision to ignore the

incident(s) and the psychological discomfort it has created and return to the pre-encounter ways

of thinking, or to move towards the next stage of Black racial identity development if the distress

is powerful enough.

*Immersion-Emersion.* The third stage, *Immersion-Emersion*, is characterized by a

significant change in worldview by African Americans. Vandiver et al. 2002 suggests that there

are two facets of Immersion-Emersion that become "two separate identities: Intense Black

Involvement and Anti-White" (pg 72). The individual develops a strong connection to and values

everything *Black* or *Afrocentric*, and may begin to devalue everything *White* or *Eurocentric*

(Cross, 1991; Vandiver et al., 2001). The individual begins to "immerse" him or herself in Black

culture or over-romanticize about what it means to be Black, often turning to Black literature or

Black history to begin to try to redefine his or her identity. Individuals may also develop an anti-

White sentiment where they begin to emerge from beneath the veil of dominant society. It almost

becomes a type of counterculture wherein the individual views White culture as wrong, unfair,

and the complete opposite of their newly acquired Afrocentric values.

*Internalization.* The fourth and final stage of Black Identity development is the

Internalization stage. In this stage, sometimes referred to as "Black self-actualization," the

individual develops a positive Black identity without devaluing aspects of White (Cross, 1991;

Vandiver, 2001). He or she comes to learn that one can admire and live by Afrocentric and Black

cultural values while at the same time accepting and respecting aspects of White culture. There is

no longer a need to "fight the oppressor;" and instead the individual has come to terms with his

or her Blackness and has also learned to appreciate the unique nature of White culture (Cross,

1991). While some would view this stage as being the ideal identity, an individual would not

necessarily have to reach this stage in order to live what he or she believes to be a fulfilling life.

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**Multidimensional Model of Racial Identity (MMRI).** Another proposed model of

racial identity, the Multidimensional Model of Racial Identity (MMRI), asserts that there is not a

specific set of behaviors and/or attitudes that is typical of all African Americans, but rather there

are a wide range of behaviors and attitudes ascribed to what it means to be Black, and that this

meaning is individually based (Sellers, Rowley, Chavous, Shelton, and Smith, 1997; Sellers et

al., 1998). The MMRI suggests that Black identity is defined by the importance and significance

that an individual places upon race: 1) in how the individual views him or herself and, 2) how the

individual defines what it qualitatively means to be a member of a particular racial group (Sellers

et al.,1997; 1998).

There are four assumptions in this model. The first assumption is that an individual's

identity has static qualities while simultaneously being situationally subjective (Sellers et al.,

1998). In other words, there is a stable consistent self that influences and is influenced by the

environment. The second assumption is that individuals have multiple identities which are

arranged in a hierarchical fashion whereby the individual places greater significance on certain

aspects of his or her identity over others. For example, an individual may identify herself as a

"Black Woman" or a "Woman who is Black." The third assumption is that an individual's

perception of his or her racial identity is the best indicator of his or her core identity (Sellers et

al., 1998). The MMRI focuses on the subjective perception of the self rather than objective

behaviors. Where the MMRI differs from the original incantation of the Cross nigrescence model

is the focus of the fourth assumption of this MMRI. While Cross's model initially focused on

stages of Black identity development, MMRI is more concerned with the status of an

individual's racial identity. Essentially, the MMRI is concerned with an individual's racial

identity at a certain point in time during the individual's life and not so much how an individual

moves through a developmental stage (Sellers et al., 1998). However, it should be noted that the

revised model of Cross's nigrescence theory believes that there are also dimensions of Black

racial identity.

The MMRI attempts to define "attitudes and beliefs that may influence behaviors or be

products of behaviors" (Sellers et al., 1997 p. 806). Sellers and colleagues (1997) suggest that

there four dimensions of Black racial identity, "identity salience, centrality of the identity, the

ideology associated with the identity, and the regard in which the person holds African

Americans." In the MMRI, *salience¸* refers to the amount of importance an individual places on

race in his or her own self-perception (Sellers et al., 1997; 1998). Sellers and colleagues propose

that race salience is contingent upon how willing individuals are to suggest that race plays a

major part in their lives. Once this occurs, it is more likely that their view of race will impact

how they interact, respond to, and interpret events in their environment. The second dimension

of the MMRI, centrality, is fairly contingent upon salience.

*Centrality* signifies the degree to which an individual is willing to define him or herself in

terms of race (Sellers et al.). It is suggested that on the centrality dimension, individuals place

race on a type of hierarchy. The individual has multiple identities with race being just one of

those many identities. Depending on the importance an individual places on race (salience) in his

or her self-concepts, it will be ranked higher on that hierarchy of identities or be more

central/core to how the individual defines him or herself.

The third dimension of the Multidimensional Model of Racial Identity is *racial ideology.*

Ideology can be viewed as an individual's philosophy about how African Americans should

behave and how African Americans should interact with other people in American society

(Sellers et al., 1997; Sellers et al., 1998). Sellers and colleagues (1997) propose that there are

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four ideologies within the MMRI: 1) the *nationalist* ideology refers to world-view where the promotes the uniqueness of having an African heritage; 2) an *oppressed minority philosophy* highlights the similarities between African Americans and other minority groups in America who have been oppressed; those with an *assimilationist* ideology highlight the shared qualities between other Americans and African Americans; and finally 4) a humanist ideology that accentuates the connections and similarities between all humans.

*Regard* is the fourth and final dimension of the MMRI it indicates the emotional/evaluative attitude an individual has about his or her own race (Sellers et al.,1997). It refers to the degree to which individuals have positive or negative feelings about not only other African Americans, but also being African American themselves. Researchers suggest that there are two components of regard, *public* and *private* regard. Public regard relates to how an individual believes other groups perceive African Americans either positively or negatively; whereas private regard refers to the individual's subjective point of view regarding their feelings towards African Americans, and whether or not they have positive or negative feelings about being Black.

**African Americans and Substance Use**

**Stereotypes about African American Substance Use.** There is a stereotype, whether it is expressed explicitly or held implicitly, that African Americans hold more permissive attitudes towards alcohol consumption and other illicit drug use when compared to other groups, and thus are believed to be more likely to abuse alcohol and other illegal substances (Caetano, Clark, & Tam, 1998). Given the media's influence, and the way that some portray African American culture as one of violence, sexual promiscuity, and drug use, this is not surprising (Miller et al., 2007). Researchers have demonstrated that many alcohol advertisers and providers often target

minority groups and minority neighborhoods (Alaniz, 1998; Amey et al., 1996; Caetano et al., 1998; Herd & Grube, 1996).

In one study, researchers found that the number of alcohol outlets per resident (e.g. bars, liquor stores) was significantly greater in many predominantly poor African American neighborhoods compared to neighborhoods of Caucasian Americans (Alaniz, 1998; Miller et al., 2007). This is an alarming considering that statistics show the proportion of alcohol outlets is related to the amount of violence, homicide, and alcohol related arrests for a given area (Alaniz; Canteno et al.). Additionally, some television networks that target African American consumers often advertise products that lead to counterproductive, unhealthy lifestyles, like fast food, malt liquor, and hard alcohol (Alaniz, 1998; Herd & Grube, 1996; Miller et al., 2007). This could, in part, help explain why there are a fairly large proportion of people who view Blacks as aggressive, potentially violent and dangerous individuals who engage in overtly hostile behavior (Livingston & Brewer 2002; Smith-McLallen, et al., 2006).

There is some evidence to suggest that viewing Black media can lead to an increase in drinking and/or illicit substance use behaviors (Herd & Grube, 1996; Caetono, et al., 1998). It was suggested that those who view Black media are more likely to actively take part in social activities where alcohol and substances are used, such as attending parties and/or going to nightclubs where alcohol is provided. It is possible that these types of media are promoting stereotypical and unhealthy behaviors in certain Black communities.

**Racial/Ethnic Identity and Substance Use.** As previously indicated, Black racial identity is an intricate and multidimensional construct (Caldwell et al., 2004; Cross, 1991; Sellers et al., 1997; 1998; Worrell, Vandiver, Schaefer, Cross, Fhagen-Smith, 2006). Because being Black has different meanings to different individuals, this leads to very complex connections to

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drinking and marijuana use behaviors (Brook, Balka, Brooke, Win & Gursen, 1998; Caldwell et al., 2004; Herd & Grube, 1996; Pugh & Bry, 2007). As it is, there is a relative dearth of information concerning the specific connection between racial identity and substance use. While there has been research that observes ethnic identity and its association with substance use, more recent research has attempted to determine the role that Black Racial identity plays in substance use behaviors among African Americans. In general, preliminary results suggest there is an inverse relationship between ethnic/racial identity and substance use (Brook et al., 1998; Caldwell et al., 2004; Herd & Grube, 1996; Klonoff & Landrine, 1999; Pugh & Bry, 2007). That is, as individuals have a more developed or stronger Black racial or ethnic identity, it is less likely that they will use and abuse substances.

Herd & Grube (1996) found that the effect of ethnic identification on drinking behaviors was mediated by religiosity. They found that lower levels of drinking were connected to Black awareness and Black networking, which suggested being connected to a Black social network, in general, strongly influences substance use patterns among African Americans. This is further corroborated by the finding that Black endogamy, marrying within one's own race, is significantly associated with decreased levels of drinking and higher levels of religiosity (Herd & Grube). Pugh & Bry (2007) also found that ethnic identity served as a protective factor against substance use, in particular the consumption of beer and hard liquor. They found that the strength of an individual's Black ethnic identity was related to lower levels of marijuana, beer, wine, and hard liquor use, and these findings were significant even if one accounted for gender, peer group substance use, and year in school (Pugh & Bry, 2007). These were consistent with findings by Herd & Grube (1996) and Brook et al. (1998). In their research, Herd and Grube (1996) found that ethnic identity shapes drinking behavior because ethnic identity has a strong influence on

setting social norms and beliefs amongst a group. Klonoff and Landrine (1999) also found that

individuals who tended to be more culturally traditional reported significantly less consumption

than did individuals who reported that they were more acculturated.

It has been suggested that Black racial identity may be a better predictor of drinking

behaviors in African Americans than ethnic identity because the experience of Blacks in

America is different than other ethnic groups (Caldwell et al., 2004; Sellers et al., 1997; 1998).

In one of the few recent studies that explored Black racial identity and substance use, Caldwell

and colleagues (2004) investigated the role of racial centrality, private regard, and parental

support on substance use behaviors in at-risk high school students. They found that positive

private regard and father support were inversely related to substance use. Their data suggests that

individuals who have more positive attitudes about being Black tended to report less alcohol use,

whereas the centrality of race or the importance that race played in their identity was not related

to use (Caldwell et al., 2004).

**Religiousness, Spirituality, and Substance Use**

Historically in psychology, religion is a term that has come to represent both an

"individual and institutional construct" (Hill & Pargament, 2008, p. 3). More recently, or within

the last decade and a half, there has been a growing interest in the function of religion and

spirituality as predictors of mental and physical health (Johnson, Sheets, & Kristeller, 2008a;

2008b). Religiosity has often been viewed as a multidimensional construct that involves

behavioral and attitudinal religious drive regardless of the religious orientation of that individual

(Amey et al., 1996; Marsiglia, Kulis, Nieri, & Parsai, 2005). The behavioral aspects of religiosity

(religiousness) include involvement in religious activities, the frequency of church attendance,

personal prayer, reading and studying religious texts, and attempting to live by a set of religious

standards (Albrecht et al., 1996; Amey et al., 1996; Crisp et al., 2006; Marsiglia et al., 2005).

Hill and Pargament (2008) suggest that the behavioral dimension represents a more ceremonial, "outward, institutional, doctrinal, and authoritarian expression" (p. 4). It typically involves a more social component where individuals come together for common goals of worship and express similar beliefs and values.

The attitudinal and experiential dimension can be viewed as the *spirituality* component in that it involves personal expressions of respect or regard for religion, and the degree to which an individual may or may not identify with a set of religious ideals (Hill & Pargament, 2008; Marsiglia et al., 2005). Hill and Pargament describe spirituality as:

> "an [individual's] search for the sacred, a process through which people seek to discover, hold on to, and when necessary transform whatever they hold sacred in their lives… The sacred refers to special objects or events that are set apart from the ordinary and thus deserve veneration. The sacred includes concepts of God, the divine, Ultimate Reality, as well as transcendence, as well as any aspect of life that takes on extraordinary character by the association or representation of such concepts" (p. 4).

Spirituality is the subjective, more personal aspect of the religious experience and it comes to represent a sense of freedom to express oneself in worship of the sacred. It is an inward and emotional connection with higher consciousness, be it an outward deity or an inward representation, which is relatively unsystematic in its practice (Hill & Pargament; Marsiglia et al., 2005). On this attitudinal dimension of religiosity (spirituality), the personal importance of religion may be placed ahead of actual attendance at religious services. Religiosity is a variable that influences people on a very personal level; although young people, who are under the care of the parents, are more likely to share the same religious beliefs as their parents (Marsiglia et al., 2005). It is not until a teen is no longer in the household (e.g. going away to college) that they

may begin to develop their own religious beliefs, find their own religious path, or stray from religion completely.

Although some have attempted to portray religiousness as being "bad and unhealthy," because they believe it encourages groupthink and blind adherence to doctrine, and attempt to portray spirituality as being "good and healthy," because it is thought to foster independence and personal relationships; religion and spirituality are related constructs (Hill & Pargament, 2008; Johnson et al., 2008a, Neff, 2006). It is the individual search for the sacred that serves as the common underlying journey sought by the religious and spiritual individual, because much of the search for the sacred takes place in a larger religious context (Hill & Pargament).

**Measuring Religiousness/Religiosity and Spirituality.** Attempting to measure religiousness and spirituality (R/S) can be a difficult and daunting task. Not only does it involve working with a number of complex/multifaceted issues, but there are also numerous proposed measures of R/S (Johnson et al., 2008; Neff, 2006). One measure that appears in a large proportion of the literature is the Fetzer Brief Multidimensional Measure of Religiousness/Spirituality (BMMRS). The assumption of the Fetzer model is that religiousness and spirituality are composed of twelve dimensions. However, more recently researchers using components of the Fetzer BMMRS and other measures of religiousness/spirituality have been able to reduce the number of dimensions from twelve to five.

*Dimensions of Religiousness/Spirituality.* Using confirmatory and explanatory factor analysis, Johnson et al. (2008) were able to identify five factors or dimensions of religiousness and spirituality; this was done as a reaction to the lack of consistency in the literature as to how best measure religiousness/spirituality. The five dimensions that they found were Religious/Spiritual Involvement, Search for Meaning, Religious Struggle, Quest, and Spiritual

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Well-being (Johnson et al., 2008b). However, while it would be worthwhile to explore all five dimensions of religiousness and spirituality, for the purpose of the present investigation, only religious/spiritual involvement will be examined as it is the dimension of primary interest.

Religious/spiritual involvement can be viewed as a more "general religiousness." The benefit of having a more general measure of R/S is that it can perhaps simplify the assessment process. Religious/spiritual involvement includes items that measure an individual's own self-perception of his or her religiousness/spirituality, religion and spirituality as a means of motivation, and can include things like public and private religious practices (e.g. church attendance or personal prayer). R/S involvement can be viewed is a significant guiding influence that directs how an individual chooses to live his or her life (Johnson et al., 2008a).

**Effects of Religion/Spirituality on Substance Use.** It is well-established that individuals who self-identify as very religious are less likely to abuse drugs and alcohol (Bazargan, Sherkat, & Bazargan, 2004; Bowie et al., 2005; Dunn, 2005; Fetzer Institute/National Institute on Aging Working Group, 1999). Religious participation, in many cases, has a direct influence on whether or not someone will consume substances, such as alcohol, and the amount of alcohol that individual can/will consume. That is, religious organizations and traditions often discourage, prohibit, or place restraints on the use of drugs and alcohol. Islam and several Christian denominations (e.g. Jehovah's Witnesses, Seven-Day Adventists) strongly discourage or even prohibit substance use because these religious doctrines teach that partaking of such things is a desecration of the individual's body, which is viewed as sacred and holy (Bowie et al., 1996; Marsiglia et al., 2005; Johnson et a., 2008a; 2008b).

However, Jewish and many Christian faiths permit alcohol consumption in their teachings to some degree. For example, within the Judeo-Christian religious scriptures, there are

a number of descriptions of the consumption of wine as a typical, appropriate, and sometimes encouraged practice (Bowie et al., 1996; Marsiglia et al., 2005). And, it is not unusual for some churches to use alcohol within their religious practices, (e.g., the consumption of wine communion rituals in some Catholic, Episcopal, and Anglican Churches)[4].

There is research that suggests that religiousness is not as strong of a protective factor against substance use in African Americans as it is in Whites (Amey et al., 1996; Wallace, Brown, Bachman, & LaVeist, 2003). According to Amey and colleagues (1996), "while Blacks experience higher levels of religiosity than do Whites, religiosity as measured here is not the overall deterrent to drug use for Blacks that it is for Whites" (p. 1325). This implies that although religiousness/spirituality is important, there may be other factors that more strongly influences drinking patterns among African Americans.

**Summary and Critique**

Excessive substance use among college-aged students has been shown to be related to a number of adverse life events, like engaging in unsafe sex practices, poor academic achievement, encounters with the authorities, and even disability or death. Although many college students are aware of the potential unfavorable outcomes as a result of use, many continue to consume drugs and alcohol on a regular basis. Researchers have suggested that there are several possibilities as to why college students choose to carry on this way. One explanation is that college students use alcohol and other drugs as a means to cope with the stress of being in college and, for many, navigating being relatively independent for the first time in their lives (Kieffer et al., 2006). It is also possible that students are using substances as a means of improving their social standings

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[4] It should be noted that although alcohol consumption is permissible, moderation and temperance is strongly encouraged and using until intoxicated is strongly discouraged.

and having more favorable social interactions (Gillespie et al., 2007; Kieffer et al., 2006). Some feel that alcohol consumption, in particular, provides college students an opportunity to meet and make new friends, to feel more comfortable in social situations, and to increase the chances that one might engage in romantic endeavors.

African Americans have a long history of oppression in America, where they were often identified by the color of their skin and other physical qualities before they were recognized as individuals. History informs us that African slaves were made to abandon their traditional religious practices, which were then viewed as blasphemous, and adopt Christianity. Not only this, but many were forced to discontinue outward expressions of the culture of their home countries, and many African Americans had to create an identity that was an integration of aspects of their own culture and that of the dominant society. As a result many slaves adopted Christianity, the religion of their masters.

After a number of years of oppression and discrimination, many African Americans began to reassess their identities, and depending on the interactions they had with the dominant culture, some individuals were moved to scrutinize what it meant to be "Black" and what it meant to be Black in America (Cross, 1991, Sellers et al., 1997; 1998; Vandiver et al., 2002). The crux of the Cross *Nigrescence Model* is that the development of a Black racial identity is a re-socializing experience that causes an individual to transform a preexisting identity that does not fit with how the individual sees him or herself fitting in with the rest of the world. There are several measures of Black Identity that have been utilized in the research. The Cross Racial Identity Scale is comprised of six subscales that fall within three of the four stages of Black Identity development. Although the Multidimensional Model of Racial Identity (MMRI) has been identified as one of the prominent measures of racial identity, it will not be used for the

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present study. Instead, this investigator will be utilizing the Cross Racial Identity Scale (CRIS). The Cross Racial Identity Scale was chosen for the present investigation because it demonstrates good reliability and validity and Cross's nigrescence model is perhaps the most prominent of all theories regarding Black racial identity development.

Religiousness/Spirituality (R/S) is a complex construct that has both individual and institutional components. Religiousness might be viewed as the more external institutional, social aspect of religiosity. It includes involvement in religious activities, the frequency of church attendance, personal prayer, reading and studying religious texts, and attempting to live by a set of religious standards. It is possible for an individual to be religious, (e.g. engaging in some of the behavioral aspects of religiosity) without gathering together with others. Spirituality is similar to religiousness, but it may be viewed as the more personal, subjective experience or search for the sacred (Hill & Pargament, 2008). The sacred comes to represent the quest for higher consciousness and connection to God or the divine that typically takes place in a social/religious context. In many ways R/S guides the way an individual or collection individuals choose to live their lives.

It has been demonstrated that higher levels of religiousness and spirituality are related to more healthy lifestyles and less risky behaviors, like involvement in criminal activity or engaging in unsafe sex practices. It is also well-established that individuals who report being more religious or spiritual tend to consume significantly less alcohol and use fewer illicit substances when compared to those who do not rate themselves as being religious or spiritual. Research has also demonstrated that religion and spirituality are important aspects of the African American lifestyle. However, there is also some evidence that religion and spirituality may not be as strong protective of a factor against substance use for African Americans as it is in other

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ethnic groups (Amey et al., 1996; Wallace et al., 2003). This is not to say that religiosity is not important in prohibiting alcohol use, but it has been suggested that there are other factors that may have a greater protective effect. What has also been suggested is that the strength of an individual's ethnic/racial identity has also been viewed as a protective factor against drug and alcohol use.

**Statement of the Problem and Hypotheses**

While there is research that examines the influence of ethnic/racial identity and religiousness/spirituality on substance use, there is a dearth of information that attempts to compare the two to one another and investigates how they might separately influence substance use patterns. Hunt and Hunt (2000) proposed that as Blacks living in the South migrated to the Northern United States and settled into more metropolitan areas, there was less of a need to turn to the church as the central hub of social and political activity. Whereas in the South there was a "semi-involuntary" aspect of religious participation, Blacks living in the Midwest, and on the East and West Coasts had more institutional differentiation and were able to become more actively involved, relatively speaking, in other activities. While still important, African Americans may have no longer had to rely so heavily on the church to set guidelines for appropriate behavior. Instead, being associated with and more connected to other Blacks as their reference group could have a greater impact on how individuals choose to live their lives. Previous research suggests that as individuals develop a stronger Black racial identity, they are less likely to engage in asocial behaviors like excessive substance use (Pugh & Bry, 2007; Caldwell, Sellers, Bernat, & Zimmerman, 2004; Klonoff & Landrine, 1999).

Because religion continues to be important to many African Americans, it was hypothesized that 1) religiousness/spirituality and racial identity would be related to substance

use behaviors in college students. However, because researchers suggest that there may be other factors besides religiosity that impact substance use, it was also hypothesized that 2) racial identity would be a better predictor of frequency/amount of substances used African American college students than would religiousness/spirituality.

Although not central to the proposed hypotheses, it will be worthwhile to explore whether the relationships between racial identity, R/S, and substance use differ by gender. It would also be beneficial to explore how R/S and racial identity influence problems associated with alcohol use.

CHAPTER III

**Methods**

**Participants/Recruitment**

IRB approval was obtained at five universities prior to any data being collected and

recruitment procedures varied based upon conditions set forth by the institutional review boards

at each university. Two schools utilized SONA Systems, an internet program designed to allow

undergraduate students enrolled in psychology classes to find and participate in psychological

research. By completing psychological research, these students were fulfilling one of their course

requirements. On SONA Systems, there was an invitation/ recruitment page that provided a brief

description of the study and students had the option to participate or not in order to receive

research credit (see Appendix C). After the students accessed the link on SONA Systems, they

were taken to the first page of the online questionnaire that also served as an informed consent

document (see Appendix A).

Having a SONA Systems account allowed the account holder to track those subjects who

successfully completed the survey and to grant research credits for their participation. Because

the principal investigator was unable to obtain a SONA Systems account at one of the

universities, a graduate student/teaching assistant within the psychology department at that

university agreed to track participants and grant students research credit.

Three universities did not have SONA Systems. For these schools a departmental administrative assistant, the psychology department head, and/or a faculty sponsor were contacted and permission was requested to distribute the questionnaire to students enrolled in psychology classes via email. Once permission was granted, an email was sent to professors within the department requesting their permission to offer their students course or extra credit for their participation in the study (see Appendix D). Once professors agreed to allow their students participate, the professor, faculty sponsor, or department administrative assistant sent out a mass email that also served as an informed consent and contained a link to the questionnaire to all of the students within the psychology department or in a particular class (see Appendix A). There were some instances when the professor agreed to allow their students to participate in the research, however, they did not want to offer their students extra credit. Therefore, the principal investigator provided those professors a slightly different informed consent page that allowed their students to participate, and instead of receiving extra credit, they could enter a drawing to receive one of three $50 Wal-Mart Gift Cards (see Appendix B).

In all, 196 African American college students participated in this study. Twelve participants had extensive missing data and were excluded from the final sample, which consisted of 67 men (34.3%) and 117 women (65.7%). Participants in the present study were recruited from various lower-level, upper-level, and graduate psychology courses (e.g. Introductory Psychology, Neuropsychology, Social Psychology, etc.). These students came from three predominantly White mid-sized Midwestern universities (approximately 10,000 – 15,000 students), one small historically Black Southern university (approximately 8300 students), and one small predominantly Black Midwestern university (approximately 5600 students). To be eligible for the study, participants had to be at least 18 years of age and give their informed

consent, they had to be African American, and they had to be enrolled as a student (either full-time or part-time). If an individual indicated that they were of mixed racial ancestry and included African American in the description of their race/ethnicity, they were also included. No other exclusion criteria were imposed.

Descriptive statistics regarding the participants are presented in Table 1. The majority of participants, (70.7 %) said that they were raised primarily in the Midwest (e.g. Indiana, Ohio, Missouri, Illinois, etc.). With regards to religious identification, individuals who identified as non-denominational Christian, Muslim, Buddhist, Agnostic, and Atheist participants were placed in an "Other Religion" category.

Table 1

*Descriptive Statistics for Demographic Variables in the Present Sample*

|  | Frequency | (%) |
|---|---|---|
| Gender | | |
| Male | 67 | 36.4% |
| Female | 117 | 63.6% |
| Region | | |
| Midwest | 130 | 70.7% |
| South | 20 | 10.9% |
| Other Region | 10 | 5.4% |
| Not Reported | 24 | 13.0% |
| Class Year | | |
| Freshman | 87 | 47.3% |
| Sophomore | 54 | 29.3% |
| Junior | 24 | 13.0% |
| Senior | 16 | 8.7% |
| Graduate Student | 3 | 1.6% |
| Family Income | | |
| <$10,000 | 29 | 15.8% |
| $10,000 to 19,000 | 17 | 9.2% |
| $20,000 to 29,000 | 14 | 7.6% |
| $30,000 to 39,000 | 19 | 10.3% |
| $40,000 to 49,000 | 13 | 7.1% |
| $50,000+ | 37 | 20.1% |
| Choose not to answer | 55 | 29.9% |
| Religious Denomination | | |
| Catholic | 11 | 6.0% |
| Baptist | 106 | 57.6% |
| Other Protestant | 23 | 12.5% |
| Other | 41 | 22.3% |
| Not Reported | 3 | 1.6% |

*Note*. $N = 184$

Approximately 91% (N = 169) of the sample participated in the study to fulfill course requirements or to receive extra credit in their classes. The remainder (9%; N = 15) of the sample participated in the study in order to enter their names in a drawing for one of three $50 Wal-Mart gift cards. Although African American students were the target population, students of all races/ethnicities (i.e. Caucasian, Latino/Hispanic, Asian, Native American/Alaskan) were able to access the online questionnaire in order to potentially receive research credit for their participation (N = 526).

**Measures**

To allow for easier distribution and to enhance the potential reach of the study, an online questionnaire was created using the internet survey software Qualtrics. The questionnaire designed in Qualtrics included all of the measures of interest in electronic format. The online questionnaire consisted of 120 items and it took participants between 10 – 20 minutes to complete.

**Demographic and Background Information.** Demographic information was obtained via the online questionnaire (see Appendix E). Demographic questions consisted of: the state in which they were primarily raised (e.g. Indiana, Mississippi, Ohio, etc.), year in school, gender, age, marital status, racial/ethnic background, and religious denomination and family income.

**Alcohol Use.** Alcohol use behaviors were recorded via self-report on a measure that consisted of 10 items (see Appendix F). The measure of alcohol consumption assessed participants' history with alcohol use; whether they were a life-long abstainer from consuming alcoholic beverages, if they previously consumed alcohol, or if they presently consumed alcohol, and the age at which they regularly started drinking (see Appendix F). Participants were also asked the frequency and amount/quantity of alcohol consumed, and frequency of heavy alcohol

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consumption (see Appendix F). Although participants were asked to report substance use amount/frequency over the past year and the past month, only questions reflecting use during the past year were used in analyses.

To assess frequency of consumption, participants indicated how many days each week or each month they consumed at least one alcoholic beverage. Participants responded on an 11-point scale with options that ranged from "never" to "six or seven days per week." Their responses were then converted to standard scores which reflected weekly frequency of alcohol consumption (e.g., once per month=.25; once per week=1.0). In order to determine the amount or quantity of alcohol consumed, participants were provided with a definition of a standard drink and then asked to estimate the number of alcoholic beverages or drinks they usually consumed on one drinking occasion during the past month and the past year. They indicated the estimated number of drinks on an 11-point scale with options that ranged from "I did not drink at all during the past year/month" to "13 or more drinks" per drinking occasion. Once again, their responses were recoded so that 0=never; 1=1 drink; 2=2 drinks, and so on. The standardized scores for frequency and amount were then multiplied to obtain a variable reflecting average number of drinks per week across the past year. This is a standard method for assessing alcohol consumption (Johnson et al., 2008).

To assess frequency of heavy consumption/binge drinking, participants were asked how often they had "five or more drinks" on a single occasion. Options on an 11-point scale ranged from "never" to "six or seven days per week."

**Alcohol Problems.** To determine what potential problems participants may have had as result of alcohol consumption, the Young Adult Alcohol Problems Screening Test (YAAPST; Hurlbut & Sher, 1992; see Appendix G) was utilized in the present study. The YAAPST is a 27-

item self-report measure that had participants specify the frequency of alcohol related problems they experienced in the past year. For example, participants answered questions like, "have you ever gotten into a physical fight while drinking," or "have you ever gotten into trouble at work or school because of drinking?" Participants responses then ranged from "No, never" to "yes, but not in the past year," to "yes, 3 – 40 times in the past year." Scoring higher on this measure indicated a greater frequency of problems associated with alcohol use. A composite problems score was created by computing a participant's mean response to all items on the questionnaire. The YAAPST has previously demonstrated acceptable internal consistency for the measurement of lifetime and past year problems with alpha levels of 0.87 and 0.83, respectively. Additionally, test-retest correlations for lifetime and past year problems are .85 and .73, respectively. Concurrent, criterion, and construct validity have also all been deemed acceptable by Hurlbut and Sher (1992).

**Marijuana Use.** Participants also completed a self-report measure of marijuana use that consisted of 4 items (see Appendix J). Participants were first asked if they had ever tried marijuana. They then completed a 8-point anchor rating scale that assessed how many times they had smoked marijuana in their lifetime with options ranging from 1 = *1 to five times*, to 8 = *100 or more times* (see Appendix J). They also completed a 9 point anchor rating scale to assess frequency of marijuana use over the past six months with options ranging from 1 = no use to 9 = more than once a day (see Appendix J). Finally, participants indicated how often they used marijuana in the past 30 days using a 9 point anchor rating scale from 1 = no use to 9 = more than once a day. For the present analyses, only lifetime marijuana use was utilized.

**Cross Racial Identity Scale.** To assess the stages of racial/ethnic identity, a modified version the Cross Racial Identity Scale (CRIS; Vandiver et al., 2000; CRIS Technical Manual;

Worrell, Vandiver, & Cross, 2004) was utilized. The full version of the CRIS includes demographic information and questions concerning religious involvement. Since this study had separate scales to measure religiosity and demographics, all items concerning demographic information and religiosity/religious involvement on the CRIS were omitted. The CRIS is a measure of Black racial identity based on William E. Cross' revised Nigresence Theory (1991). The Nigrescence theory conceptualizes African Americans' self-concept as a combination of personal identity (PI) and reference group orientation (RGO).

The scale consists of 40 items and has a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 =*strongly agree* (see Appendix K). The CRIS yields six subscale scores that fall within three of the four dimensions of racial identity. There are three Pre-encounter subscales: Assimilation (PA), Miseducation (PM) and Self-Hatred (PSH); one Immersion /Emersion subscale: Anti-White (IEAW); and two Internalization subscales: Afrocentricity (IA) and Multiculturalist Inclusive (IMCI).  Subscale scores were obtained by calculating the mean of the five items that composed each subscale.

The CRIS has previously demonstrated reliability scores ranging from .78 to .90 (Worrell et al., 2004). The scale has also demonstrated convergent validity with the Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1998) one of the other prominent measures of black racial identity in the literature, suggesting that it is a valid measure of Black racial identity (Vandiver et al., 2002; Worrell et al., 2004). Worrell et al. (2004) also demonstrated discriminant validity between the CRIS and the Balanced Inventory of Desirability Responding (BIDR), a scale used to measure socially desirable responding by showing the scores from each of the scales were not significantly correlated.

**Measure of religiousness and spirituality.** To assess the participants'
religiosity/spirituality, participants completed a total of 24 items (see Appendix L). These items
were taken primarily from the Brief Multidimensional Measure of Religiousness/Spirituality
(Fetzner Institute/NIA, 1999) and the positive and negative religious coping subscales from the
Brief R-COPE (Pargament 1999). This section assessed two of the five dimensions of
religiousness and spirituality proposed by Johnson and colleagues (2008): religious/spiritual
involvement and religious distress/struggle.

**Religious/Spiritual Involvement**. Subjects first indicated their religious identification by
selecting one of the 17 items listed for denomination, including a place to state "other" and write
in their religious faith. This item appeared in the demographics section of the questionnaire.
Participants reported to what extent they considered themselves to be a religious person and to
what extent they considered themselves to be a spiritual person on a 5-point Likert-type scale
ranging from "not religious at all" to "very religious" and "not spiritual at all" to "very spiritual,"
respectively. Scores from these two items were summed to create an indicator of subjective
religiosity/spirituality (See Appendix L).

Participants also answered questions regarding their participation in religious activities
both in the past month and past year. They were asked how often they attended religious
services, how often they participated in other activities at a place of worship, how often they
prayed privately or meditated, how often they listened to or watched religious programming, and
how often they read the Bible or other religious literature (See Appendix L). A composite
religious participation score was then calculated by computing the mean of all questions
regarding participation in religious activities during the past year.

**Religious Distress/Struggle.** Finally, participants completed ten items from the positive and negative religious coping scales of the Brief R-COPE (Pargament, 1999; see Appendix M). Students were asked to "think about how you try to understand and deal with major problems in your life" and then indicate the degree to which each of the items impacts the way they cope on a 4-point scale from 1 = *a great deal* to 4 = *not at all*. All items were reverse-scored so that higher scores would be indicative of better coping. For each scale, the mean of the five items was calculated to yield a composite score.

**Procedures**

Participants completed the questionnaire online, created in the survey software Qualtrics. The assessment was always presented to the participants in the same order. They completed the items related to substance use prior to completing the measures of racial identity and religiosity/spirituality. The rationale was that a participant may have attempted to provide more socially desirable responses to the substance use portion of the questionnaire if he or she first answered or were primed by questions regarding religiosity and/or racial identity. However, not all participants answered the same questions. The program Qualtrics gives survey creators the option of including "skip logic" and/or "answer only if logic" throughout the online administration. For example, if participants indicated that they were a "lifelong abstainer from alcoholic beverages," they did not answer any questions regarding alcohol use. If a participant indicated that he or she never tried marijuana, he or she skipped all questions regarding marijuana use. There was also "answer only if logic" for the Cross Racial Identity Scale (CRIS). Participants who identified themselves as African American completed the CRIS (40 questions), whereas participants who identified themselves as any other race/ethnicity never saw the CRIS. If an individual indicated that they were of mixed racial ancestry and included African American

in the description of their race/ethnicity, they also received the CRIS. Depending upon their responses, participants may have answered some questions and not others.

**Confidentiality and Informed Consent of the Participants**

There were slight variations in how informed consent was obtained, based primarily on whether a school had SONA Systems or not. When a student accessed the study on SONA Systems, they were taken to the first page of the Qualtrics Survey that also served as an informed consent page and by clicking "NEXT" on the bottom of the page, participants were giving their informed consent to participate in the study (see Appendix A). For schools that did not have SONA Systems, participants received an email that also served as an informed consent page. By accessing the link, they were giving their informed consent and they were taken to the first page of the questionnaire that again explained the purpose of the study.

The informed consent page, both the SONA version and the email version, explained that participants would be answering questions about some of their personal beliefs, their attitudes towards substance use, and their views on religion. They were informed that no individual data would be presented and only aggregate data was to be reported; and, they were advised to complete the questionnaire on a computer or laptop in a relatively private location where no one else could see their responses by mistake. Again, they were told that their participation was voluntary and that they had the option to opt out of the study without receiving any penalties; however, they were informed that they would be unable to access the debriefing page unless they reached the end of the questionnaire. By clicking "NEXT" at the bottom of the first page of the Qualtrics Survey, participants were acknowledging that they were at least 18 years of age, that they were willing participants in the study, that their involvement in the study was completely

voluntary, that all of their responses would remain confidential, and that they could skip

questions or discontinue their participation at any time without penalty.

Because participants were providing information about engaging in potentially illegal or

embarrassing activity (i.e. underage drinking, marijuana use) and since there are certain risks that

come along with internet communication, there were several precautions taken by the principal

investigator to protect the confidentiality of those who participated. One precaution was

requesting a waiver of signed informed consent. Because the questionnaire was being completed

online, there was no written record with the participants' names attached to it. In lieu of written

consent, participants consented to participate by clicking the link to access the survey, and thus

remained anonymous.

Another safety precaution involved advising participants to complete the questionnaire in

a private location where others could not easily observe their responses. They were then advised

to erase their internet browser cache and history. In this way, someone else using their computer

would not be able to see or access any of the information they provided.

A third safety precaution related to data storage. All responses were stored in a large

internet database with no identifying information attached to individual responses, and only

aggregate data was reported in the results. These safety precautions ensured that there was no

way that an individual could be linked back to his or her responses. Finally, if for any reason

participants felt distressed about their responses, (i.e. they discovered they may have had a

problem with substance use) they were provided the contact information for the various student

counseling centers at their universities.

**Debriefing**

Although this study did not involve deception, the true nature of the study was not revealed to the participant in the informed consent page. Instead, once participants reached the end of the questionnaire, they were taken to a debriefing page that fully disclosed the purpose of the investigation (see Appendix N). In addition to disclosing the true nature of the study, the debriefing page also served as a certificate of completion, to indicate that the student had successfully reached the end of the questionnaire.

For universities that did not have SONA Systems and could not have research credit granted by the principal investigator or the graduate student sponsor, the students could print the debriefing page and hand it in to their professor. Thus, professors would be able to grant their students credit. In the event that someone was distressed about their responses because they discovered that they may have problem with substance abuse, the debriefing page also had the contact information of the various university student counseling centers to provide additional support.

CHAPTER IV

**Results**

**Analysis Plan**

This purpose of this study was to examine the degree to which religiousness/spirituality

and scores on the Cross Racial Identity Scale are related to alcohol and marijuana use in Black

college students. First, descriptive statistics, including means, standard deviations, and

frequencies for the demographic and substance use variables were calculated. The reliability

estimates of the Cross Racial Identity Scale subscales, as well as the intercorrelations between

the subscales, are also reported. Next, means and standard deviations for the racial identity and

religiosity variables were calculated within the entire sample, and separately within the male and

female subsamples. T-tests were utilized to determine whether levels of religiosity and/or racial

identity differed between groups.

To test the first hypothesis, bivariate correlation analyses were conducted to examine the

relationships between substance use, religiosity, and racial identity for the entire sample.

Correlation analyses were also conducted separately in men and women to investigate whether

the relationships differed based on gender.

Finally, a standard multiple linear regression analysis was used to examine the extent to

which the six subscales of the Cross Racial Identity Scale and religiousness/spirituality predicted

regular alcohol use among African American college students. Additional multiple regression

analyses were performed to determine the extent to which these same variables predicted

problems associated with alcohol use, binge drinking, and marijuana use.

**Descriptive Statistics**

Table 2 provides the descriptive statistics for alcohol and marijuana use across the entire

sample. Nearly one third of the participants indicated that they had never consumed alcohol at

this point in their lives. In addition, over 40% of the sample reported never using marijuana.

Table 2

*Descriptive Statistics for Alcohol and Marijuana Use in Present Sample*

|  | Mean/Frequency | (SD/%) |
| --- | --- | --- |
| Drinking Status |  |  |
|    Lifetime Abstainer | 59 | 32.1% |
|    Former Drinker | 32 | 17.4% |
|    Current Drinker | 93 | 50.5% |
| Past Year Drinks Per Week | 2.30 | 5.19 |
| Alcohol Problems* | 3.70 | 4.55 |
| Lifetime Marijuana Use |  |  |
|    No Use | 76 | 41.3% |
|    1 to 5 times | 33 | 17.9% |
|    6 to 19 times | 22 | 11.9% |
|    20 to 99 times | 19 | 10.3% |
|    100 times or more | 27 | 14.7% |
|    Not reported | 7 | 3.8% |

*Note*. $N = 184$. *Alcohol problems score was calculated by summing the number of problems reported on the YAAPST. This figure does not account for the frequency with which the problems were reported.

Table 3 presents subscale intercorrelations for each of the six subscales of the Cross

Racial Identity Scale. Internal consistencies are presented along the diagonal, and were adequate

for all subscales (.75 to .88). Several subscales showed significant correlations with one another.

Black self-hatred was significantly positively correlated with Anti-White and Miseducation.

There was a significant negative correlation between Anti-White and Multiculturalist Inclusive,

and a significant positive correlation between Anti-White and Afrocentricity.

Table 3

*Subscale Intercorrelations for the Cross Racial Identity Scale*

| Subscale | PA | PM | PSH | IEAW | IA | IMCI |
|---|---|---|---|---|---|---|
| PA | (.753) | | | | | |
| PM | .111 | (.856) | | | | |
| PSH | .146* | .348** | (.876) | | | |
| IEAW | -.147 | .189* | .383** | (.881) | | |
| IA | .004 | .394** | .164* | .323** | (.798) | |
| IMCI | .163* | -.105 | -.153* | -.366** | .055 | (.745) |

\* Correlation is significant at the 0.05 level; \*\* Correlation is significant at the 0.01 level

Table 4 presents the intercorrelations between the four primary R/S variables: overall R/S, religious participation, positive religious coping, and negative religious coping. Overall R/S, religious participation, and positive religious coping were all significantly positively correlated with one another, whereas there was a significant negative correlation between negative religious coping and the other religion variables.

Table 4

*Subscale Intercorrelations for the Religion Variables*

| Variable | R/S | Rel Partic | Pos COPE | Neg COPE |
|---|---|---|---|---|
| R/S | | | | |
| Rel Partic | .602** | | | |
| Pos COPE | .603** | .581** | | |
| Neg COPE | -.248** | -.380** | -.286** | |

\*\* Correlation is significant at the 0.01 level

The means and standard deviations for all religiosity/spiritual and the CRIS subscales are presented in Table 5. Independent samples t-tests were conducted to compare scores for men and women, and analyses revealed that the men and women differed significantly on several variables. Specifically, women reported significantly higher levels of religiousness/spirituality, whereas men showed significantly higher elevations on the Pre-Encounter profile score for Black Self-hatred, and the Immersion-Emersion Anti-White profile score. Additionally, men scored

higher on the Miseducation subscale, while women scored higher on the Multicultural Inclusive

subscale.

Table 5

*Means and Standard Deviations for Religiousness/Spirituality and the Cross Racial Identity Scale*

| | Full Sample | | Males | | Females | | |
|---|---|---|---|---|---|---|---|
| Variable | Mean | SD | Mean | SD | Mean | SD | P |
| Religiousness/Spirituality | 7.27 | 1.97 | 6.78 | 2.20 | 7.55 | 1.78 | .016* |
| Religious Participation | 4.39 | 1.92 | 3.98 | 2.03 | 4.62 | 1.83 | .031* |
| Positive Coping | 3.05 | 0.73 | 2.90 | .089 | 3.14 | 0.61 | .061 |
| Negative Coping | 1.56 | 0.54 | 1.73 | 0.64 | 1.45 | 0.45 | .002* |
| | | | | | | | |
| Pre-encounter | | | | | | | |
| Assimilation | 3.80 | 1.28 | 3.77 | 1.17 | 3.80 | 1.28 | .802 |
| Miseducation | 3.42 | 1.47 | 3.70 | 1.47 | 3.27 | 1.46 | .060 |
| Self-Hatred | 2.03 | 1.22 | 2.31 | 1.36 | 1.87 | 1.11 | .030* |
| Immersion-Emersion | | | | | | | |
| Anti-White | 1.69 | 0.96 | 1.88 | 1.09 | 1.57 | 0.86 | .049* |
| Internalization | | | | | | | |
| Afrocentricity | 3.20 | 1.16 | 3.34 | 1.28 | 3.11 | 1.08 | .213 |
| Multicultural Inclusive | 5.40 | 1.03 | 5.21 | 1.10 | 5.50 | 0.97 | .060 |

*Note.* Total *N* for males= 67, Total *N* for females= 117. Total combined *N*= 184. * Correlation is significant at the 0.05 level

**Primary Analyses**

Table 6 presents bivariate correlational analyses that were conducted in order to assess

the relationships between substance use and racial identity profile scores for the total sample and

within male and female subsamples. Four separate substance use variables were examined:

average drinks per week (DPW) during the past year, frequency of binge drinking during the past

year, alcohol problems as assessed by the YAAPST, and lifetime marijuana use.

Results from the correlational analyses indicate that Pre-Encounter Assimilation (PA)

was negatively correlated with alcohol use in the present sample, suggesting that individuals who

report higher levels of PA are also reporting that they consume less alcohol per week, and binge

drink less often, than the entire sample. There was a significant positive correlation between Pre-

Encounter Miseducation (PM) and alcohol use, but not binge drinking or alcohol problems, in

the full sample. Pre-Encounter Self-Hatred (PSH) exhibited significant positive associations with

alcohol use, binge drinking, and scores on the Young Adult Alcohol Problems Screening Test.

To examine whether the magnitude of the associations between racial identity and substance use differed between genders, correlation analyses were also conducted separately in male and female subsamples. Comparison of these correlations was conducted using Fisher's r-to-z transformation which revealed significant differences between correlations for several variables. Specifically, men who reported higher levels of PM and PSH also reported more alcohol use, but these relationships were not significant in women ($zs = 1.59$-$1.61$, $p=.05$). There was also a positive correlation between anti-White attitudes and alcohol use in women, but not men ($z = -1.53$, $p=.06$). In addition, women's self-reported binge drinking was negatively associated with PA, and although this relationship was not significant in men, the magnitude of the correlations did not differ between genders ($z = -0.35$, $p=.36$).

Table 6

*Correlations between Substance Use and the CRIS within the Total Sample and between Men and Women*

| Total Sample | PA | PM | PSH | IEAW | IA | IMCI |
|---|---|---|---|---|---|---|
| DPW | -.147* | .152* | .261** | .114 | -.026 | -.022 |
| Binge | -.221** | .127 | .158* | .101 | -.053 | -.069 |
| YAAPST | -.060 | .088 | .196** | .144 | -.018 | .016 |
| Marijuana | -.023 | -.036 | .073 | .073 | -.063 | -.027 |
| | | | | | | |
| Males | | | | | | |
| DPW | -.144 | .255* | .346** | .017 | -.087 | -.062 |
| Binge | -.195 | .236 | .248* | .009 | -.156 | -.095 |
| YAAPST | -.133 | .217 | .194 | .174 | -.014 | .012 |
| Marijuana | .034 | .109 | -.027 | .213 | -.029 | -.049 |
| | | | | | | |
| Females | | | | | | |
| DPW | -.178 | .009 | .112 | .251* | -.019 | -.079 |
| Binge | -.247** | .013 | .033 | .151 | .012 | -.011 |
| YAAPST | -.003 | -.051 | .179 | .087 | -.041 | .048 |
| Marijuana | -.055 | -.147 | .125 | -.058 | -.103 | .007 |

*Note.* Total *N* for males= 67, Total *N* for females= 117; Total combined *N*= 184. PA = Pre-encounter Assimilation; PM = Pre-encounter Miseducation; PSH = Pre-encounter Self-Hatred; IEAW = Immersion-Emersion Anti-White; IA = Internalization Afrocentricity; IMCI = Internalization Multicultural Inclusive; DPW = Drinks Per Week; YAAPST = Young Adult Alcohol Problems Screening Test; Marijuana = Lifetime Marijuana Use. *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level

Table 7 presents the results of the bivariate correlational analyses for substance use and religiosity. Again, these analyses were conducted for the entire sample, and then in men and women separately. Four indicators of religiosity were examined: overall religiosity/spirituality (R/S), religious participation during the past year, and scores on the positive and negative subscales of the brief R-COPE.

For the overall sample, results indicated students who reported greater R/S and religious participation were less likely to use alcohol, binge drink, and report alcohol-related problems during the past year. There were also small, but statistically significant negative correlations between religiousness/spirituality, religious participation, and marijuana use. For the brief R-COPE, positive coping was significantly negatively related to all substance use variables for the overall sample. Negative coping, however, was only related to YAAPST scores, such that individuals who reported more negative coping also reported more alcohol-related problems.

Several gender differences emerged for the relationships between religiousness and substance use. Specifically, for men, higher levels of religiousness were negatively correlated with number of drinks per week, frequency of binge drinking, scores on the YAAPST, and lifetime marijuana use, whereas there was no relationship between R/S and alcohol use variables in women ($zs = -2.50—1.76, p<.05$). A similar pattern emerged for religious participation, although the relationship between binge drinking and religious participation was not different for men and women. For positive coping, the relationship with alcohol use was greater in men ($z = 1.39, p=.08$). Finally, for negative coping, the relationship with YAAPST scores was greater in women ($z = 1.33, p=.09$).

Table 7

*Correlations between R/S Involvement and Substance Use within the Total Sample and Between Men and Women*

| Total Sample | R/S | Rel Partic | Pos COPE | Neg COPE |
|---|---|---|---|---|
| | | | | |
| DPW | -.338** | -.219** | -.305** | .074 |
| Binge | -.296** | -.265** | -.203** | .086 |
| YAAPST | -.239** | -.277** | -.251** | .165* |
| Marijuana | -.155* | -.195** | -.190* | .135 |
| Males | | | | |
| DPW | -.457** | -.338** | -.367** | .057 |
| Binge | -.411** | -.296* | -.203 | .076 |
| YAAPST | -.347** | -.403** | -.269* | .064 |
| Marijuana | -.308* | -.258* | -.232 | .135 |
| Females | | | | |
| DPW | -.103 | -.043 | -.167 | .008 |
| Binge | -.130 | -.208* | -.165 | .024 |
| YAAPST | -.087 | -.136 | -.203* | .265** |
| Marijuana | -.011 | -.132 | -.131 | .099 |

*Note.* Total *N* for males= 67, Total *N* for females= 117 Total combined N= 184. R/S = Religiousness/Spirituality, DPW = Drinks Per Week, YAAPST = Young Adult Alcohol Problems Screening Test, Marijuana = Lifetime Marijuana Use. *Correlation is significant at the 0.05 level; **Correlation is significant at the 0.01 level

To test the second hypothesis and determine whether both racial identity profile scores and self-reported religiousness/spirituality would be significant predictors of alcohol use in African American college students, a hierarchical multiple linear regression analysis was used. To create a more parsimonious model, a composite religiousness variable was created in the following manner: 1) z-scores were calculated for overall R/S, religious participation, and positive coping; then 2) the mean of the three z-scores was calculated to create a composite score. Negative religious coping was left as a separate subscale given that correlation analyses suggested it was a theoretically distinct construct. It was computed by creating a mean score from the five questions that comprised it. For the multiple regression analysis, gender, composite R/S, and negative coping were entered as a block in Step 1, followed by the six Cross Racial Identity profile scores in Step 2. The primary dependent variable of interest was alcohol use (i.e., drinks per week).

In the first step, the overall equation was significant [$F(3, 178)=7.80$, $p<.0001$] and accounted for 12% of the variance. Of the three variables entered in Step 1, only composite R/S was a significant predictor of alcohol use. After adding the CRIS subscale scores to the model (Step 2), the overall equation was significant [$F(9, 172)=4.00$, $p<.0001$] and accounted for an additional 10% of the variance in alcohol use. The results of the regression analysis are presented in Table 8. In the full model, religiousness/spirituality was the variable most strongly related with alcohol use ($B = -.327$, $p < .001$), followed by Pre-encounter Self-Hatred ($B = .275$, $p < .01$) and Pre-encounter Assimilation ($B = -.212$, $p < .01$). There were no other significant relationships found. The primary hypothesis that higher levels of religiousness/spirituality and that certain profile elevations on the Cross Racial Identity Scale would have an impact on alcohol use was supported by the analysis. However, the secondary hypothesis that profile scores on the CRIS would be a better predictor of substance use was not supported. The findings suggest that R/S was a better predictor of alcohol use than any of the CRIS subscales in this population.

Table 8

*Multiple Regression for CRIS, R/S, and Alcohol Use*

| Variable | *B* | *SE* | *Beta* | *P* |
|----------|-----|------|--------|-----|
| Gender | -1.12 | .79 | -.103 | .16 |
| R/S | -2.00 | .46 | -.327 | <.001** |
| Neg COPE | -0.66 | .74 | -.068 | .38 |
| PA | - 0.86 | .29 | -.212 | .003* |
| PM | 0.47 | .28 | .133 | .09 |
| PSH | 1.17 | .37 | .275 | .002* |
| IEAW | 0.26 | .45 | .049 | .56 |
| IA | -0.50 | .36 | -.110 | .17 |
| IMCI | 0.53 | .38 | .103 | .17 |

*Note.* $N = 184$; *$p < .01$; **$p < .001$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

The multiple regression analysis was repeated three more times with the following dependent variables: alcohol problems, binge drinking, and marijuana use. Results are displayed in tables 9, 10, and 11, respectively. The overall models accounted for 14%, 19%, and 6% of the variance in alcohol problems, binge drinking, and marijuana use, respectively. For alcohol problems and binge drinking, R/S remained the strongest predictor of substance use. For alcohol problems, although the addition of the CRIS variables accounted for an additional 4% of the variance, none of the individual subscales was a significant independent predictor. For binge drinking, in addition to R/S, the CRIS variables accounted for an additional 9% of the variance, and Pre-encounter Assimilation was a significant independent predictor. For marijuana use, the model was significant in the first step, with religion being an independent predictor of lifetime marijuana use, but the overall equation was not significant. None of the CRIS subscales were significant predictors of marijuana use.

Table 9

*Multiple Regression for CRIS, R/S, and Alcohol Problems*

| Variable | B | SE | Beta | P |
|----------|------|------|-------|-------|
| Gender | -0.02 | .07 | -.020 | .79 |
| R/S | -0.14 | .04 | -.272 | .001* |
| Neg COPE | 0.05 | .06 | .063 | .42 |
| PA | -0.03 | .03 | -.101 | .18 |
| PM | 0.02 | .02 | .052 | .53 |
| PSH | 0.04 | .03 | .099 | .28 |
| IEAW | 0.06 | .04 | .145 | .10 |
| IA | -0.04 | .03 | -.102 | .23 |
| IMCI | 0.06 | .03 | .138 | .08 |

*Note.* $N = 184$; *$p < .01$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 10

*Multiple Regression for CRIS, R/S, and Binge Drinking*

| Variable | B | SE | Beta | P |
|----------|------|------|-------|---------|
| Gender | -0.49 | .35 | -.103 | .17 |
| R/S | -0.76 | .20 | -.286 | <.001** |
| Neg COPE | -0.17 | .33 | -.041 | .60 |
| PA | -0.46 | .13 | -.265 | <.001** |
| PM | 0.21 | .12 | .140 | .08 |
| PSH | 0.24 | .16 | .131 | .14 |
| IEAW | 0.11 | .20 | .047 | .58 |
| IA | -0.25 | .16 | -.130 | .11 |
| IMCI | 0.11 | .17 | .049 | .53 |

*Note. N* = 184; *\*p* < .01; *\*\*p* < .001. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 11

*Multiple Regression for CRIS, R/S, and Marijuana Use*

| Variable | B | SE | Beta | P |
|----------|------|------|-------|------|
| Gender | -0.19 | .48 | -.031 | .69 |
| R/S | -0.63 | .28 | -.180 | .03* |
| Neg COPE | 0.33 | .44 | .061 | .46 |
| PA | -0.05 | .18 | -.023 | .77 |
| PM | -0.14 | .17 | -.068 | .44 |
| PSH | -0.04 | .23 | -.017 | .86 |
| IEAW | 0.25 | .28 | .083 | .38 |
| IA | -0.18 | .22 | -.072 | .42 |
| IMCI | 0.11 | .24 | .037 | .66 |

*Note. N* = 184; *\*p* < .01; *\*\*p* < .001. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Since the second hypothesis was not supported by the data for the full sample, additional multiple regression analyses were run separately for men and women to determine if there were any gender differences with regards to the predictor variables and the substance use dependent variables. Results for men are displayed in Tables 12, 13, 14, and 15, respectively (See Appendix O). The data indicated that for men, the models (Steps 1 & 2) accounted for 34%, 26%, 26%, and 27% of the variance for overall alcohol use, alcohol problems, binge drinking, and marijuana

use, respectively. For men, R/S involvement remained the strongest predictor of overall alcohol use, binge drinking, and alcohol problems. However, while R/S significantly predicted lifetime marijuana use, for men, Black Self-hatred was the strongest predictor of lifetime marijuana use. In fact, it was a negative predictor of marijuana use in the present sample.

For women in the present sample, results of the multiple regression are presented in Tables 16, 17, 18, 19 respectively (See Appendix P). The data indicated that for women the models accounted for 13%, 13%, 11%, and 8% of the variance for overall alcohol use, alcohol problems, binge drinking, and marijuana use. Interestingly for women, Cross Racial Identity Profiles scores on the anti-White and Multicultural Inclusivity were the best predictors of overall alcohol use and were, in fact, positive predictors of overall alcohol use. For binge drinking, assimilation and R/S involvement were significant negative predictor variables. Finally, negative religious coping was a positive predictor of alcohol problems for women in the present study. None of the explanatory variables predicted marijuana use for women.

CHAPTER V


**Discussion**

The primary purpose of the present study was to explore the influence of Black racial

identity and religiousness/spirituality on substance use patterns in African Americans.  The

current investigation was designed to extend previous research by specifically attempting to

explore these relationships in African American college students using the Cross Racial Identity

Scale (CRIS) and exploring the religious/spiritual involvement dimension of religiosity identified

by Johnson and colleagues (2008).  What follows is a discussion of the hypotheses that were and

were not supported in the present study. Additionally, practical and theoretical implications for

the findings will be presented. Finally, limitations and possible directions for future research will

be offered.

**Religious/Spiritual Involvement and Substance Use**

As hypothesized (hypothesis 1), self-reported religious/spiritual (R/S) involvement was

significantly related to alcohol use in the African American college student population. R/S

involvement was measured by asking participants to rate the degree to which they viewed

themselves as a religious and/or spiritual person, indicate how often the participated in church or

church related activities, and report how often they engaged in private worship. The study found

moderate negative correlations between R/S involvement variables and alcohol use. Overall,

individuals who viewed themselves as being highly religious/spiritual and were more involved in

religious activities reported significantly less alcohol consumption and engaged in less frequent binge drinking than their peers. Present findings support previous literature that suggests individuals who report higher levels of religiosity/spirituality tend to report significantly less alcohol use (Bazargan et al., 2004; Caldwell et al., 2004; Hugh & Bry, 2007; Nasim et al., 2007).

The data from the present study indicates that R/S involvement appears to have a protective effect against alcohol use and binge drinking in African American college students. The data substantiates some of the literature regarding the role of R/S and its effects on alcohol use. In general, R/S has been found to be negatively correlated with alcohol use in past studies; however, some researchers have suggested that R/S involvement for African Americans may not serve as strong of a protective role against substance use as it does for other ethnicities (Amey et al., 1996; Wallace et al., 2003). In their studies, both Amey and colleagues (1996) and Wallace and colleagues (2003) used high school students as participants. In the current sample, however, the R/S involvement was the variable most strongly correlated with alcohol use. There are several possible explanations for these findings.

Religiousness and church involvement have long been an integral aspect of life for Blacks in the United States. It is possible that religiousness is so central to the identity of African Americans that any alcohol use would be well-controlled by their religious and spiritual values. In many ways R/S could be viewed as the moral compass by which these individuals choose to navigate the potentially dangerous waters of college life, thus strongly prohibiting alcohol use. These findings regarding self-reported R/S were consistent with findings in a study conducted by Walker and colleagues (2007), who investigated the relationship between R/S involvement and substance use behaviors in adolescents by using self-report measures. Of all their variables, the researchers found that adolescents who reported strong personalized importance of religiosity

tended to use substances less frequently than their peers (Walker et al., 2007).

Although not a primary hypothesis, the current study also explored how R/S involvement affected problems associated with alcohol use as measured by the Young Adult Alcohol Problems Screening Test (YAAPST). Again, the YAAPST was measured by creating a mean score for all of the items that reflected the frequency of problems and the total number of reported problems. The relationship between R/S and problems was assessed using bivariate correlation analyses. Although the scores were weighted based on the frequency with which they had experienced negative consequences as a result of their drinking, it did not weight the severity of the problems; for example, there was no way to differentiate between someone who had a hangover the morning after drinking (perhaps a less severe problem) versus someone who had been arrested for driving under the influence of alcohol (a relatively more severe problem). Nonetheless, data indicated that individuals who reported more R/S involvement experienced fewer problems associated with alcohol use. Not unexpectedly, given what is known about alcohol use as it relates to the present study, these findings suggest that individuals who tend to be more religious/spiritual and participate regularly in religious activities do not experience problems associated with alcohol abuse as frequently as their counterparts who report less R/S.

An unanticipated finding in the present study was the relationship between R/S involvement and marijuana use. There was a weak significant negative correlation between R/S and marijuana use. The data from the current sample indicates that while R/S involvement may impact marijuana use, its protective effects are not as strong as they are for alcohol use.

Consistent with previous findings regarding African Americans and substance use, there tended to be a large percentage (41%) of African Americans who never used marijuana, and for those who did report use, there was a tendency not to use frequently. Although not measured in

the present investigation, one possible explanation for the weak inverse relationship between R/S and marijuana use could be the students' attitudes towards marijuana use in general. Perhaps for some students, religious individuals included, marijuana is not viewed as being particularly detrimental to the individual's personal, spiritual, or physical well-being. It is also possible that some view marijuana use as relatively mild when compared to alcohol use. Research has consistently shown that alcohol use tends to lead to more negative life events, relatively speaking (Kieffer etl al., 2006). For example, excessive alcohol consumption is likely to lead to accidental death or injury, deviant behaviors, and unsafe sexual practices. As such, marijuana use may be viewed as less harmful and thus more permissible.

**Cross Racial Identity Scale and Substance Use**

As anticipated, Black racial identity, as measured by the Cross Racial Identity Scale, had a significant impact on substance use behaviors in African American college students. The data from the present investigation supported the hypothesis to a certain degree. Although students generally tended to rate themselves most highly on the Internalization Multicultural Inclusive subscale, this subscale was not at all related to substance use patterns, as one might have expected. Instead, all three of the Pre-Encounter subscales of Cross's nigrescence model were significantly correlated with alcohol use for the entire sample, while Immersion-Emersion, and the two Internalization subscales were not related to substance use. The Pre-Encounter phase in Cross's model reflects African Americans holding certain attitudes about race that fall on a sort of continuum ranging from low-salience to race (i.e., assimilation) to misunderstanding Black culture, to employing anti-Black sentiments (Cross, 1991; Vandiver et al., 2001).

**Pre-Encounter Assimilation (PA).** Pre-Encounter assimilation (PA) was found to be negatively correlated, though modestly, with alcohol use in the bivariate correlational analysis.

While it was hypothesized that subscales on Cross's Racial Identity Scale would have an impact on substance use, that assimilation would be negatively correlated with alcohol use was unanticipated. Pre-Encounter Assimilation refers to an attitude that an individual has about race. Again, if viewing assimilation as an endpoint on the continuum of Pre-Encounter attitudes, at this stage/phase of racial identity, race is not salient to the individual or the individual tends not to give much weight to race (Cross, 1978; 1991; Vandiver et al., 2001). This is similar to the concept of *racial centrality* in the Multidimensional Model of Racial Identity (MMRI; Seller et al., 1998). People who provide more support for this dimension of their racial identity are suggesting that other aspects of their identities are more important than race. It is not to say that they do not recognize race, but being "Black" is not central to how they view themselves. For example, they may give more credence to being an "American" or a "college student" than a being "Black/African American" or a "Black college student."

It has been suggested in the literature that individuals who present with stronger assimilation attitudes tend to report or express greater levels of traditional Western/American values (Cross, 1978). As a result, one might suspect these individuals to have more permissible/accepting attitudes towards alcohol use because Caucasians, particularly during their college years, are more likely to consume alcohol than are their peers from other ethnicities (Amey et al., 1996; Albrecht et al., 1996; Johnston et al., 2005; SAMHSA, 2007). Thus, one might speculate that Blacks who score higher on assimilation would potentially have a greater likelihood of consuming alcohol if Caucasians are their reference group. However, in the present study that did not appear to be the case.

In recent research by Cross and others regarding Black racial identity, it was suggested that assimilation may not be limited to just holding more traditional Western values. As

previously stated, assimilation could refer to any aspect of the individual's identity that he or she believes to be central to their identity. And, low race-salience does not necessarily equate to that individual having Caucasians as their reference group (Cross, 1991; Sellers et al., 1998; Vandiver et al., 2001). Instead, it is possible that individuals in the present sample who are expressing higher levels of assimilation might view religiosity or being a part of a church as their reference group as being more relevant or consistent with their values/beliefs. As such, there would be temperance with regards to alcohol use since research consistently shows that religiosity has prohibitive effects on alcohol consumption (Bazargan et al., 2004; Bowie et al., 2005; Dunn, 2005; Walker et al., 2007). To be viewed another way, rather than saying "I'm an American first," or "I'm an African American," that individual might be saying "I'm a Christian first," or "I'm a religious person."  These findings somewhat contradict the results reported by Caldwell and colleagues (2004) in how drinking behaviors related to racial centrality. They suggested that less racial centrality is related to more consumption.

**Pre-Encounter Miseducation.** In the present study, Pre-Encounter Miseducation (PM) was found to have a modest positive correlation with alcohol use and this suggests that individuals who may have misconceptions about Blacks are reporting more alcohol use. Persons who are showing elevations on the PM dimension of the CRIS are inclined to display attitudes/opinions about being Black that are somewhat stereotypical in nature and thus view Blacks more negatively (Cross, 1991). An individual may learn about Black culture through a distorted lens and begin to internalize some of these distortions (Cross, 1991; Vandiver et al., 2001; Worrell& Gardner-Kitt, 2006). Taylor and Jackson (1991) proposed that stereotypes about Blacks presented in print and electronic media, or general daily social interactions may lead some African Americans to adopt some of these same stereotypes. And, it is possible that

individuals who are reporting higher levels of miseducation are beginning to develop more negative attitudes or opinions about being Black. When this occurs, it is possible that the individual begins to doubt his or her self-worth (Cross, 1991; Taylor & Jackson, 1991; Vandiver et al., 2001). These detriments in the individual's self-worth may then lead some to use alcohol as a means of coping with some of the negative emotions that they are having about their race. This would be consistent with previous research that suggests that people will use alcohol to deal with/cope with psychological and emotional discomfort (Kieffer et al., 2006; Novak et al., 2003). Again, if these negative attitudes about being Black become excessive, it may lead an individual to adopt an anti-Black point of view.

**Pre-Encounter Self-Hatred.** Pre-Encounter Self Hatred was significantly positively associated with alcohol use in the present study. Individuals who scored higher on PSH reported more alcohol consumption than their peers. These findings support previous research that has found correlations between negative feelings about being Black and substance use. In one study, Taylor and Jackson (1991) found that individuals who had stronger internalized negative feelings about being Black were also more likely to consume alcohol. Similarly, Caldwell and colleagues (2004) found that individuals who felt less positive about being Black reported more alcohol use than peers who felt more positive about being Black. The data from the present study also indicated that Black Self-hatred was significantly positively correlated with problems related to alcohol use as measured by the YAASPT. Individuals who reported more PSH also had experienced more adverse life events as a result of their alcohol use. These findings are consistent with previous research that indicated that individuals who score high on the PSH report engaging in more asocial, possibly harmful behaviors (Vandiver et al., 2001).

If looking at Pre-Encounter as a continuum, individuals who score high on Black Self-

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hatred view race as being quite salient, but they hold strong negative feelings about being Black. These negative feelings are based primarily upon biases and stereotypes about Blacks that are perpetuated in the media (Canteno et al, 1998; Cross, 1991; Herd & Grube, 1996; Vandiver et al., 2001). For those who are higher on self-hatred, they may make attempts to distance themselves from other African Americans, either consciously or not, to avoid the psychological or emotional discomfort that comes from being Black or being perceived negatively by the dominant group (Cross, 1991). It has been suggested that Black Self-Hatred is a form of "extreme miseducation" (Cross, 1991; Vandiver et al, 2001).

It is possible that when individuals in the present sample are incorporating stronger negative feelings about what it means to be Black, and recognize that they too are Black (reference group), it creates inner turmoil, discomfort, and causes them to question their self-worth (personal identity). Much like what may be occurring with miseducation, the individual may choose to use substances as a means to deal with the tension that has been created. Because self-hatred is a more severe form of miseducation, it potentially increases the likelihood of using alcohol as an easy escape for those who have disapproving opinions about themselves for being Black. However, it is difficult to make this connection in the present study, since neither self-esteem nor self-worth was considered.

It should be noted that although individuals who reported higher PSH reported more alcohol use, it does not mean that PSH was the highest score on their profile. In fact, PSH was generally the second lowest profile score behind Anti-White. Nonetheless, of all the subscales of the CRIS, PSH was the most strongly correlated with alcohol use in the present sample.

None of the other subscales on the CRIS (i.e., Immersion-Emersion Anti-White, Internalization Multicultural Inclusivity, or Internalization Afrocentricity) were related to

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substance abuse for the entire sample. This is somewhat surprising considering that some

research has suggested that "healthier" forms of Black racial identity would contribute to the

individual engaging in less potentially harmful behaviors (Nasim et al., 2007; Pugh & Bry,

2007).  Also, no CRIS subscales were correlated with marijuana use. This was somewhat

unexpected given that CRIS scores were correlated with alcohol use and consequently one might

expect that other substance use behaviors would be influenced by racial identity.

**Hypothesis Two**

Previous research suggested that there is a protective effect of R/S against substance use.

While religiosity has long since been a significant way in which African Americans define

themselves, R/S does not serve as strong of a protective role for African Americans as it does for

other ethnicities (Amey et al., 1996; Herd & Grube, 1996; Wallace et al., 2003). Studies have

also demonstrated that a strong sense of ethnic or racial pride and/or stronger within group

cultural bonds tend to have a positive influence on abstinence behaviors (Caldwell et al., 2004;

Herd & Grube, 1996; Klonoff & Landrine, 1999; Nasim et al., 2007; Pugh & Bry, 2007).

Because there was no known literature, to date, that compared Black racial identity and

religiousness, it was then hypothesized (hypothesis 2) that Black racial identity would be a better

predictor of substance use than would self-report religiousness/spiritual involvement in African

Americans. However, this was not supported by the data in the present study. Instead, for the

overall sample of African American participants, R/S involvement emerged as the best predictor

of alcohol use of all the explanatory/predictor variables in the current study in the multiple

regression analysis. Two CRIS subscales (self-hatred and assimilation) were also independent

predictors of alcohol use, but accounted for less variance than R/S involvement. The secondary

regression analyses which utilized alcohol problems, binge drinking, and marijuana use as

dependent variables yielded similar results. For all analyses, R/S remained the best predictor of substance use overall. In fact, for alcohol problems and marijuana use, R/S was the *only* significant predictor in the model. For binge drinking, assimilation was also a significant independent predictor.

While the secondary hypothesis was born primarily out of the literature regarding religiosity being a less potent predictor of substance use in African Americans than in other ethnic groups, it was also partly born out of literature regarding the "semi-involuntary hypothesis" of religious participation (Hunt & Hunt, 2000). Hunt and Hunt (2000) proposed that because of high levels of racial discrimination, participating in church activities was one of the few avenues by which African Americans could gather socially without much negative recourse from Whites. This was thought to be particularly true for African Americans living in the South (Hunt & Hunt, 2000). It was suggested that as Blacks migrated from the South to other areas of the country, there were more opportunities to be involved in activities other than the church. Because a majority of the participants came from the Midwest, it was believed that perhaps Black racial identity would have a greater impact on substance use. But this assumption was not supported by the data. Unfortunately, in the present sample there were not enough participants who identified as being raised in the South to use as a comparison group.

Perhaps there was not a clear distinction between Black racial identity and religiousness in the present investigation due to the history of religion and religious participation in the lives of African Americans. Historically, church involvement was the one way in which African Americans were able to escape feelings of oppression or to have membership to some group. As Cross stated, the Black racial identity emerged as a result of an integration of coming to terms with being Black and dealing with the greater society (1991). Because religion played such a

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significant role in the lives of African Americans throughout their history in the United States, it may be difficult and perhaps impossible to unravel the two. It is possible that the two are so intertwined, that for many African Americans, being Black also equates to having strong religious values. Most participants reported at least moderate levels of religiousness and spirituality, and very few participants (less than 1%) indicated that they were not at all spiritual/religious, and only a few participants claimed to be Atheists.

**Other Findings**

Although no hypothesis was made regarding the impact that gender might have, the present study found that there were gender differences in the present sample. Results revealed some significant differences in how religion, racial identity, substance use, and gender interacted. Generally, women were significantly less likely to consume alcohol than were men and women tended to report higher levels of R/S involvement in the present study than did men. These findings are consistent with existing literature.

**Religious/Spiritual Involvement and Gender.** In the full sample, R/S involvement was found to be significantly negatively correlated with alcohol use. Yet, the data indicated that the level of R/S involvement was significantly correlated with alcohol use in men and, in fact, R/S involvement was not at all correlated to regular alcohol use in women, though there was a significant negative correlation between binge drinking and R/S for women. So, even though women in the present study tended to report fairly high levels of R/S involvement, it appeared that being religious had protective effects against alcohol consumption for men that were not present in women. It is possible that because the men tended to show less religiosity in general, perhaps making a conscious effort to be religious had an impact on their substance use behaviors. This would be useful information to consider in future research.

**Black Racial Identity and Gender.** In the present study, men were significantly more likely to report higher levels of Pre-Encounter Self-Hatred on the Cross Racial Identity Scale (CRIS) than were women. This was significant because although Pre-Encounter self-hatred (PSH) was significantly related to alcohol use for the entire sample, it was significantly correlated with alcohol use in male participants, but not in female participants. Results showed that men were not only reporting higher levels of self-hatred overall, but self-hatred was significantly related to drinking behaviors with more consumption co-occurring with higher levels of self-hatred. Perhaps for African American men, college is particularly difficult to navigate with regards to self-esteem and self-worth. As a result of struggling with their self-confidence because of their "Blackness," these individuals may turn to drinking to cope. It is also possible that the reverse is true. Perhaps drinking has had a negative impact on their self-worth, and they are attributing their problematic drinking behaviors to being Black. Men also reported significantly higher scores on Immersion-Emersion Anti-White than did women, although this did not appear to directly influence drinking behaviors.

Even though men reported significantly higher Immersion-Emersion Anti-White scores on the CRIS than did women, data indicated that for women higher scores on Immersion Emersion Anti-White (IEAW) were positively correlated with alcohol use. In other words, as African American women in the present study demonstrated more anti-White attitudes, they were more likely to have used alcohol. Speculation as to what may have influenced these findings will be explored in the following implications section.

Quite unexpectedly, the present study also found a strong positive correlation between Self-Hatred and Anti-White attitudes on the Cross Racial Identity Scale. To date, this has not been found in other research regarding the CRIS (Vandiver et al., 2002; Worrell et al., 2004).

This suggests that individuals who were reporting more self-hatred were also expressing strong negative feelings towards Whites. It is possible that these individuals are upset that they believe dominant society makes them feel inferior about themselves because of their race. This could potentially lead to future research regarding how self-hatred and anti-White attitudes interact.

*Hypothesis Two and Gender.* The second hypothesis in the present study was that Black racial identity would be a better predictor of substance use than would R/S involvement. For the overall sample of African American participants this hypothesis was not supported. However, when running the regression analyses separately for each gender, there were some interesting and significant findings and the second hypothesis was partially supported.

For men in the present sample, R/S Involvement continued to be the best predictor of alcohol use, problems with alcohol use, and binge drinking. However, Black self-hatred was the best predictor of marijuana use. What was intriguing and perhaps counterintuitive about this finding was that Black self-hatred was a negative predictor for lifetime marijuana use. Interestingly, what this suggests is that if an individual has more negative attitudes about being Black, he is significantly less likely to use or have used marijuana.

Cross Racial identity profile scores had a more significant impact on alcohol use in women. The data indicated that the anti-White and Multicultural Inclusivity subscales were positive and the best predictors of overall alcohol use. This suggests that not only women who have more negative attitudes about Caucasian are more likely to drink, but women who consider themselves to be quite multicultural in their way of approaching others also are more likely to consume alcohol. In women, assimilation and R/S involvement were significant negative predictor variables for binge drinking, indicating that women who view race as being less salient and women who are more religious/spiritual are less likely to engage in excessive drinking.

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Negative religious coping was a positive predictor of alcohol problems, suggesting that women in the present who tend to more often believe that they are being punished by God/a Higher Power are also more likely to experience problems associated with alcohol use.

**Implications**

The current study found that religious/spiritual involvement and the three Pre-Encounter subscales of the Cross Racial Identity Scale (Assimilation, Miseducation, and Self-Hatred) were significantly associated with drinking behaviors in African American college students. In general there were still relatively large numbers of individuals who never consumed alcohol or used marijuana and when substance use was present, it did not appear to be a regular occurrence for the majority of participants in the current sample. Data from the present study has a number of implications for how racial identity and religiosity influence substance use behaviors. There are also practical implications with regards to potentially treating substance use/abuse in African Americans.

  **Theoretical Implications.** In the present study, R/S involvement and racial identity were significantly related to alcohol use in African American college students, although together, these factors only accounted for a relatively small percentage of the variance in the regression analysis. Therefore there appear to be other unmeasured factors that could be accounting for more of the variance in substance use. Factors not assessed in the present study such as present peer group association, self-esteem, and/or motivations for using could all contribute to substance use behaviors.

  What seems to be of particular importance is how religiosity played a part in substance use in the present study, particularly in alcohol use. Overall, R/S involvement was negatively correlated with alcohol use and binge drinking. These results are consistent with existing

literature, despite the fact that some previous research has shown that R/S is not as strong of a

protective factor against alcohol use in African American adolescents as it is in other ethnicities

(Amey et al., 1996; Herd & Grube, 1996; Wallace et al., 2003). Essentially, the results suggest it

would be difficult to discuss alcohol use without considering the role that religiosity plays in

drinking behaviors. It appears that, much like in other ethnic groups, for African Americans R/S

involvement is important for helping to control alcohol use and preventing some of the potential

negative consequences that could come along with use. It might be beneficial to consider this

information in the treatment of substance use/abuse in African Americans, in particular for men.

In the present study, while women tended to use alcohol less frequently than men, there

did not appear to be a protective effect of R/S involvement against alcohol use, although it was

negatively correlated with binge drinking. It also found that women who tended to rely less on

God for making decisions or who somehow felt they were being punished by God, were more

likely to experience negative consequences as a result of alcohol use. It is unclear at this time

why R/S involvement may not have served as a protective factor against drinking in women, but

this could be examined in future research. Also, religiosity had very modest effects on marijuana

use in the present study. It seemed that while people who were more likely to be

religious/spiritual were reporting less marijuana use, it would seem that other elements might be

more involved, and thus could prove fruitful when exploring the relationship between marijuana

use and Black college students.

Of the subscales of the Cross Racial Identity Scale, Black Self-Hatred appeared to be the

best predictor of alcohol use in the present study. Self-hatred has been found to lead to more

asocial behaviors in other studies and this seems to be true for participants in the present sample.

Individuals who tended to score higher on self-hatred not only reported more alcohol use, but

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they also reported significantly more problems as a result of drinking. Black self-hatred was more strongly correlated with drinking in men than it was in women. This could suggest that men who struggle with Black self-hatred may be more likely to turn to substances as a means of coping. Or, it could indicate that individuals who use substances then feel guilty about their use and perhaps blame their race for their substance use. Another way of viewing it is, if these individuals see Blacks as being more prone to using alcohol, and they themselves are using alcohol, it could have detrimental effects on their self-esteem. It is possible that these results support how reference group orientation can have an impact on an individual's self-worth and self-esteem (Cross, 1991). However, it is difficult to make that connection because the present study did not measure self-esteem. Quite unexpectedly Black self-hatred was a negative predictor for marijuana use in African American men. This is a rather peculiar finding that could be explored in future research.

The present investigation also found a strong negative correlation between Pre-Encounter Assimilation and several alcohol use variables. This suggests that individuals for whom race is not salient tended to engage in less drinking behaviors. As previously stated, this indicates that perhaps other aspects of their identity hold much more credence. One of the assumptions in the Multidimensional Model of Racial Identity is that individuals' identities are organized in a hierarchical fashion (Sellers et al., 1998). Individuals who are scoring higher on assimilation are perhaps indicating that they view some other aspect of their identity, like religiousness as being more important or more central to who they are.

It was also discovered that higher levels of Anti-White attitudes in African American women were positively correlated with alcohol use, suggesting that women who have more negative feelings towards Caucasians are more likely to consume alcohol than are their peers. It

is difficult to speculate as to exact nature of this relationship, because several variables could be involved. Perhaps African American women are less likely to interact with or socialize with Caucasians on a regular basis and thus feel less connected to Whites. It is also possible that these women may feel somewhat ostracized by the White community and thus feel less inclined to have strong positive feelings for them. However, these suggestions are purely speculation and should not be taken as direct evidence of a relationship. Instead, future research could take time to investigate what other variables might be interacting.

**Practical Implications.** The present findings also have a number of implications for the treatment of alcohol use. Adding a component of R/S involvement to an alcohol treatment paradigm could potentially yield more significant results in attempting to control drinking behaviors, or helping these individuals maintain sobriety. This could also suggest that a program like Alcoholic Anonymous, which has strong religious overtones, could be a good option for African Americans, in particular men who struggle with alcohol abuse.

These data could also support the notion that it is beneficial to promote a greater sense of racial/ethnic pride to help moderate drinking (Caldwell et al., 2004; Herd & Grube, 1996; Klonoff & Landrine, 1999; Pugh & Bry, 2007). Perhaps treatment paradigms that target African Americans could devote a portion of the time providing education about the positive history and contributions of Black culture, and also instilling a sense of strong racial/ethnic pride, or at least attempt to reduce any stereotypes that these individuals might have about being Black. By reducing these stereotypes, it could be possible to reduce miseducation, potentially prevent feelings of self-hatred, and thus decrease the likelihood of drinking.

**Limitations**

One limitation of the present study is that potential motivations for drinking and/or using

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marijuana were not assessed. Although it was not a variable of interest, it could have perhaps provided additional information as to why some chose to use substances and others did not. For example, it is difficult to determine what the motivations may have been for an individual who is reporting somewhat higher levels self-hatred to use substances. It is purely speculative to say that an individual who reports higher Black self-hatred has low self-esteem and thus is motivated to drink because of low self-esteem.

Another limitation in the present study was that there were not enough participants coming from the Southern United States to serve as a comparison group. Although it was not central to the hypothesis, there was an interest in comparing whether there were regional differences in how religiosity and racial identity impacted substance use. However, due to some difficulties in recruiting participants from the Southern states, there were not enough participants from this region to conduct these analyses.

Another possible limitation has to do with the explanatory/predictor variables. Although there were significant correlations and predictions, the variables included only accounted for a modest amount of the variance in substance use behaviors. This suggests that there are potentially other factors that were unmeasured that could play a much greater part in controlling drinking behaviors in African American college students than the variables identified.

The present study used primarily a convenience sample of African American students in psychology classes enrolled at predominantly White Universities in the Midwestern United States. As a result, it may be difficult to generalize some of these findings to other African American students (e.g. students attending Historical Black Colleges or Universities) or African Americans who are not in school or who have never gone to school.

Finally, participants in the present study were using self-report as a means of indicating

various attitudes and behaviors. However, with self-report there is always the potential for participants to provide inaccurate information. Although anonymity was given, some individuals may have had a more difficult time reporting their true feelings with regards to racial identity or their substance use.  Also, with self-report, it is difficult to determine if someone is attempting to provide socially desirable responses or present themselves in a more positive light.

**Suggestions for Future Research**

Although existing research has explored the relationship between religiosity and substance use, and racial/ethnic identity and substance use, few have attempted to explore how they both may separately or concurrently impact substance use in African Americans. Therefore the present study attempted to tease out these factors and determine if there are, in fact, differences in racial identity and religiosity, and how they influence substance use. The data from the present investigation supported several studies regarding racial/ethnic identity and substance use; however, the current investigation demonstrates the complexity of these variables and their influence on alcohol and marijuana use. In the present study, there were only three explanatory variables that appeared predict alcohol use: religious/spiritual involvement, Black self-hatred, and assimilation. It would perhaps be beneficial to revisit religious/spiritual involvement. Most studies of R/S and its impact on substance use focus on middle school and high school students. Future research could explore the relationship between R/S involvement and substance use in Black college students to determine if they are perhaps more similar to other ethnic groups in regards to religiosity serving as a protective factor.  Future research could also attempt to identify other factors that might influence drinking behaviors in African Americans, like motivations for using. It is possible that drinking is used to cope with psychological discomfort, or it could be used for social lubrication.

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Another promising future direction will be to continue investigating the role that Black Self-Hatred and Assimilation play in alcohol use behaviors among African Americans, in particular Self-Hatred in Black men. They were the only two subscales on the CRIS that significantly predicted drinking behaviors for the entire sample. Future research could examine the impact that Self-hatred has on the psychological/emotional well-being of African Americans in college. It is possible that self-hatred could be related to a number of other factors, like self-esteem, academic performance, and graduation rates. Furthermore, it may be beneficial to explore the relationship between assimilation and other potential identities that an individual may be report or place more emphasis on other than racial identity.  Future research could also investigate the influence of anti-White attitudes on drinking behaviors in African American women.

In the present study, regional differences in substance use could not be examined. Future research should explore how the relationships among religiosity, racial identity, and substance use may differ based upon the region of the country from which an individual identifies. As previously proposed, it is possible that region of the country could serve as a meditating or moderating variable. For example, an individual raised primarily in the Southern United States may be more likely to be religious because of the semi-involuntary hypothesis of religious participation and thus that has an effect on substance use. Future research should also explore these variables (R/S involvement and Black racial identity) and their influence on substance use in other populations. For example, it could be beneficial to explore these factors in a clinical population to see if the results from the present study can be replicated.

The present study found very modest correlations between marijuana use and R/S involvement. Future research may want to explore what underlying factors besides religiosity

may be impacting marijuana use in African Americans. Lastly, it could be beneficial to develop

treatment programs or protocols that are based on some of the implications of the data from the

present study. Future research could be conducted to determine if these factors would be useful

in substance abuse treatment with African Americans.

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APPENDICES

APPENDIX A


**Consent Form**

Dear Student:

You are invited to take part in a research study conducted by Chaz Mailey, who is a doctoral student from the Clinical Psychology Department at Indiana State University.  Below you will find a link to a questionnaire that will take approximately 10 – 20 minutes to complete. The information you provide will make a significant contribution to the study of substance use patterns in college students. The questions focus primarily on your personal beliefs, experiences with substance use, and spirituality and religion. Due to the relatively sensitive nature of some of the questions, your participation is completely voluntary, and you may withdraw consent and discontinue participation at any time.  Also, if there is an item that you feel uncomfortable answering, you may skip it and move on to the next question.

Although minimal, a potential risk with internet communications is that through intent or accident, while answering questions, someone other than the intended recipient may see your responses. As a safety precaution, it is recommended that while completing the questionnaire you do so in a place where you will have adequate privacy and others cannot easily observe your responses. Additionally, you will not be asked for personally identifiable information (i.e. name, email address) and will only answer questions regarding age, gender, level of education, and region of the country with which you identify. Moreover, under no circumstances will individual data be released and only group data will be reported. Once you have completed the survey, you will receive no further email contacts from the principal investigator. If for any reason you should experience any psychological discomfort after completing the survey, you can contact the Indiana State Student Counseling Center (812) 237-3939.

Participants who successfully complete the survey will be given a debriefing page that also serves as a certificate of completion. On this debriefing page, in the top left-hand corner, you will receive a unique Respond ID that indicates that you have successfully completed the survey. Depending on the institution you attend, this certificate of completion along with the response ID may be given to your instructor for course credit.  For this reason, it is important to be in a location where the debriefing can be printed. While you will not be penalized for discontinuing, only those surveys that have been successfully completed will receive the certificate.

Completion of the survey indicates your informed consent.  By accessing the link below, you are

acknowledging that you are at least eighteen years of age.

**https://indstate.qualtrics.com/SE/?SID=SV_6JZyxKhI81YpvPC**

If you have any questions about this research please contact Chaz Mailey, M.S. at cmailey@indstate.edu <mailto:cmailey@indstate.edu> or Thomas Johnson, Ph.D. at Tom.Johnson@indstate.edu <mailto:Tom.Johnson@indstate.edu>. If you have any questions about your rights as a research subject, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail the IRB at irb@indstate.edu. You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with ISU. The IRB has reviewed and approved this study. Please feel free to print a copy of the informed consent for your own records.

Thank you in advance for your participation!

Chaz Mailey, M.S.
Doctoral Candidate and Principal Investigator
Dept. of Psychology
Indiana State University
cmailey@indstate.edu <mailto:cmailey@indstate.edu>

Thomas Johnson, Ph.D.
Professor and Dissertation Chair
Dept. of Psychology
Indiana State University
Tom.Johnson@indstate.edu  <mailto:Tom.Johnson@indstate.edu>

APPENDIX B


**Consent Form: Incentive/Drawing**

Dear Student:

You are invited to take part in a research study conducted by Chaz Mailey, who is a doctoral student from the Clinical Psychology Department at Indiana State University. The information you provide will make a significant contribution to the study of substance use patterns in college students. The questions focus primarily on your personal beliefs, experiences with substance use, and spirituality and religion. We cannot explain all of the details of the experiment to you at this time, but they will be explained fully at the conclusion of the experiment. Due to the relatively sensitive nature of some of the questions, your participation is completely voluntary, and you may withdraw consent and discontinue participation at any time. Also, if there is an item that you feel uncomfortable answering, you may skip it and move on to the next question. Your decision either to participate or not in the study will not impact your grades, class standing, or relationship to the institution.

To ensure confidentiality, you will not be asked for personally identifiable information (i.e. name, email address, and signature) and you will only answer questions regarding age, gender, level of education, and region of the country with which you identify. Additionally, once your survey is completed it is to be placed in a large envelope and only the principal investigator and the dissertation chair will have access to the information. Moreover, under no circumstances will individual data be released and only group data will be reported. Once you have completed the survey, you will receive no further email contacts from the principal investigator unless you choose to enter the drawing for a Wal-Mart Gift Card. If for any reason you should experience any psychological discomfort after completing the survey, you can contact the Indiana State Student Counseling Center (812) 237-3939.


Participants who successfully complete the survey will be eligible for an **INCENTIVE FOR THEIR TIME**. If you complete the survey you will find a debriefing page where you have the option to access a link and choose to enter your name and email address into a drawing for one of three (3) $50 WAL-MART GIFT CARDS. While you will not be penalized for discontinuing, **only those surveys that have been successfully completed can enter the drawing**.

If you have any questions about this research please contact Chaz Mailey, M.S. at cmailey@indstate.edu <mailto:cmailey@indstate.edu> or Thomas Johnson, Ph.D. at Tom.Johnson@indstate.edu <mailto:Tom.Johnson@indstate.edu>. If you have any questions about your rights as a research subject, you may contact the Indiana State University Institutional Review Board (IRB) by mail at Indiana State University, Office of Sponsored Programs, Terre Haute, IN 47809, by phone at (812) 237-8217, or e-mail the IRB at irb@indstate.edu. You will be given the opportunity to discuss any questions about your rights as a research subject with a member of the IRB. The IRB is an independent committee composed of members of the University community, as well as lay members of the community not connected with ISU. The IRB has reviewed and approved this study.

Thank you in advance for your participation!

Chaz Mailey, M.S.
Doctoral Candidate and Principal Investigator
Dept. of Psychology
Indiana State University
cmailey@indstate.edu <mailto:cmailey@indstate.edu>


Thomas Johnson, Ph.D.
Professor and Dissertation Chair
Dept. of Psychology
Indiana State University
Tom.Johnson@indstate.edu <mailto:Tom.Johnson@indstate.edu>

APPENDIX C


**Recruitment Letter: SONA Systems**

Dear Student:

You are invited to take part in a research study conducted by Chaz Mailey, who is a doctoral student from the Clinical Psychology Department at Indiana State University. Below you will find a link to a questionnaire that will take approximately 10 – 20 minutes to complete. Your decision either to participate or not will in no way impact your grades, class standing, or relationship to the institution.

**To be eligible to participate, you must be 18 years of age or older**. The questions focus primarily on your personal beliefs, experiences with substance use, and spirituality and religion. Due to the relatively sensitive nature of some of the questions, your participation is completely voluntary, and you may withdraw consent and discontinue participation at any time. Also, if there is an item that you feel uncomfortable answering, you may skip it and move on to the next question.

Although minimal, a potential risk with internet communications is that through intent or accident, while answering questions, someone other than the intended recipient may see your responses. As a safety precaution, it is recommended that while completing the questionnaire you do so in a place where you will have adequate privacy and others cannot easily observe your responses and that you clear your browser cache and page history. While there is no individual potential benefit to you for participating in the study, the information you provide will make a significant contribution to the study of substance use patterns in college students.

Should you have any questions regarding this study please contact me, Chaz Mailey by email at cmailey@indstate.edu or my dissertation chair, Dr. Thomas Johnson by email at Tom.Johnson@indstate.edu.

Thank you in advance for your consideration,

Chaz Mailey, M.S.

APPENDIX D


**Recruitment Letter to Professors**

Dear Professor,


My name is Chaz Mailey and I am a doctoral student from the Clinical Psychology Department at Indiana State University. I am currently collecting data for my dissertation, and I am writing to ask for your assistance in recruiting students to take part in my research study. I am studying the relationships among religiosity, racial identity, and substance use among college students, and I am recruiting at your University because I am especially interested in recruiting African American participants. I was wondering if you would be willing to send a link to my survey to your current students/students in your department. It is an online questionnaire that should take 10-20 minutes to complete. With your permission, I would also like to offer students an opportunity to receive course credit or extra credit as an incentive for their participation in the study. The information the students provide will make a significant contribution to the understanding of substance use patterns among college students. The study has been approved by the University's Institutional Review Board, and students will be assured that their participation is voluntary and their responses are anonymous.

If you would please reply to this email to indicate whether or not you are able to assist me, I would very much appreciate it. If you have any questions about this research please contact Chaz Mailey, M.S. at cmailey@indstate.edu <mailto:cmailey@indstate.edu> or Thomas Johnson, Ph.D. at Tom.Johnson@indstate.edu <mailto:Tom.Johnson@indstate.edu>.

Thank you in advance for your assistance!


Chaz Mailey, M.S.
Doctoral Candidate and Principal Investigator
Dept. of Psychology
Indiana State University
cmailey@indstate.edu <
mailto:cmailey@indstate.edu>

Thomas Johnson, Ph.D.
Professor and Dissertation Chair
Dept. of Psychology
Indiana State University
[Tom.Johnson@indstate.edu](mailto:Tom.Johnson@indstate.edu)  <[mailto:Tom.Johnson@indstate.edu](mailto:Tom.Johnson@indstate.edu)>

**Demographic/Background Information**

In which state were you primarily raised: _____

1) Year in school: _____ A) Freshman      _____ B) Sophomore    ___ C) Junior _____ D) Senior
_____ E) Graduate Student

2) Sex:  _____A) Female _____B) Male

3) Age: _____

4) Marital Status:
_____ A) single/never married        _____ C) living as married      _____ E) married
_____ B) divorced                _____ D) other (widowed, separated, etc.)

5) What is your racial or ethnic background? (Check all that apply)
_____A) African-American           _____ F) Native American or Alaska Native
_____B) African                _____ G) Hispanic
_____C) Asian-American            _____ H) Pacific Islander
_____D) Asian                _____ I) Mixed Race (check all that apply)
_____E) Caucasian (White, Non-Hispanic)

6) Religious Denomination - Select the one item that best describes your current religious
identification:
_____ A) Agnostic              _____ J) Christian - Other Denomination
_____ B) Atheist              _____ K) Hindu
_____ C) Buddhist              _____ L) Muslim/Islam
_____ D) Christian - Catholic        _____ M) Jewish
_____ E) Christian - Lutheran        _____ N) Taoist
_____ F) Christian - Methodist        _____ O) Pagan / Wiccan
_____ G) Christian - Baptist        _____ P) Unitarian-Universalist
_____ H) Christian - Other Protestant   _____ Q) Other (List:_____)
_____I)  Christian – LDS (Mormon)

7) What is your family yearly income?

    ____ A) Less than $10,000            ____ E) $40,000 to $49,999

    ____ B) $10,000 to $19,999          ____ F) $50,000+

    ____ C) $20,000 to $29,999          ____ G) I choose not to answer

    ____ D) $30,000 to $39,999

8) Which university do you attend?

    _____ A) Ball State University

    _____ B) Bowling Green State University

    _____ C) Indiana State University

    _____ D) Jackson State University

    _____ E) Lincoln University

9) Which of the following best describes where you live while in college?

    _____ A) Residence Hall

    _____ B) On Campus Fraternity or Sorority

    _____ C) Off Campus Fraternity or Sorority

    _____ D) Alone in an apartment or house

    _____ E) With friends or roommates in an apartment or house

    _____ F) With parents or relatives in an apartment or house

    _____G) Married student housing

10) Are you presently associated with a fraternity or sorority?

    _____ A) No, and I do not attend fraternity or sorority activities

    _____ B) No, but I occasionally attend fraternity or sorority activities

    _____ C) No, but I regularly attend fraternity or sorority activities

    _____ D) Yes, I am a member

**Alcohol Use Measure**

**For questions 1 and 2 please choose the answer that best describes your experience.**

1) Are you at present:

_____ A) A lifelong abstainer from alcoholic beverages

_____ B) A former drinker of alcoholic beverages (now an abstainer)

_____ C) A drinker of alcoholic beverages

2) At what age did you begin regularly drinking alcohol (at least one drink per month)?

_____ A) 14 or less _____ D) 17 _____ G) 20 _____ J) 23 or older

_____ B) 15 _____ E) 18 _____ H) 21 _____ K) I do not drink

_____ C) 16 _____ F) 19 _____ I) 22

**For questions 3, 4, 5 and 6 (the next FOUR questions) please choose the answer that comes closest to describing your drinking <u>during the past year</u>, -- that is, <u>since about this time last year</u>.**

3) How often did you consume alcoholic beverages <u>during the past year</u>?

_____ A) Never _____ G) Two days per week

_____ B) Less than once a month _____ H) Three days per week

_____ C) About once a month _____ I) Four days per week

_____ D) Two times a month _____ J) Five days per week

_____ E) Three times a months _____ K) Six or seven days per week

_____ F) About once a week

**In this questionnaire, one "drink" is equal to 1 beer or wine cooler (12 ounces), 1 glass of wine (4 ounces), or 1 shot of liquor (1 1/4 ounces).**

4) What is your <u>usual</u> quantity of alcoholic beverages consumed at any one drinking occasion <u>during the past year</u>?

_____ A) I did not drink at all during the past year

_____ B) 1 bottle (or can) of beer, 1 wine cooler, 1 glass of wine, or 1 mixed drink

_____ C) 2 bottles, wine coolers, wine glasses, mixed drinks

_____ D) 3 bottles, wine coolers, wine glasses, mixed drinks

_____ E) 4 bottles, wine coolers, wine glasses, mixed drinks
_____ F) 5 bottles, wine coolers, wine glasses, mixed drinks
_____ G) 6 bottles, wine coolers, wine glasses, mixed drinks
_____ H) 7 or 8 bottles, wine coolers, etc.
_____ I) 9 or 10 bottles, wine coolers, etc.
_____ J) 11 or 12 bottles, wine coolers, etc.
_____ K) 13 or more bottles, wine coolers, etc.

5) Think of the occasion you <u>drank the most</u> during the past year. How much did you drink?

| | |
|---|---|
| _____ A) I did not drink at all during the past year. | _____ G) 1-12 drinks |
| _____ B) 1-2 drinks | _____ H) 13-14 drinks |
| _____ C) 3-4 drinks | _____ I) 15-16 drinks |
| _____ D) 5-6 drinks | _____ J) 17-18 drinks |
| _____ E) 7-8 drinks | _____ K) 19 + drinks |
| _____ F) 9-10 drinks | |

6) <u>During the past year</u>, how often did you consume five or more bottles or cans of beer, wine coolers, glasses of wine, or mixed drinks on a single occasion?
_____ A) Never
_____ B) Less than once a month
_____ C) About once a month
_____ D) Two times a month
_____ E) Three times a months
_____ F) About once a week
_____ G) Two days per week
_____ H) Three days per week
_____ I) Four days per week
_____ J) Five days per week
_____ K) Six or seven days per week

**For questions 7, 8, 9, and 10 (the next FOUR questions) please choose the answer that comes closest to describing your drinking during the past month, -- that is, since about this time last month.**

7) How often did you consume alcoholic beverages <u>during the past month</u>?

| | |
|---|---|
| _____ A) Never | _____ F) Two days per week |
| _____ B) One time during the past month | _____ G) Three days per week |
| _____ C) Two times during the past month | _____ H) Four days per week |
| _____ D) Three times during the past month | _____ I) Five days per week |
| _____ E) About once a week | _____ J) Six or seven days per week |

**In this questionnaire, one "drink" is equal to 1 beer or wine cooler (12 ounces), 1 glass of wine (4 ounces), or 1 shot of liquor (1 1/4 ounces).**

8) What is (or was) your <u>usual</u> quantity of alcoholic beverages consumed at any one drinking occasion <u>during the past month</u>?

_____ A) I did not drink at all during the past month
_____ B) 1 bottle (or can) of beer, 1 wine cooler, 1 glass of wine, or 1 mixed drink
_____ C) 2 bottles, wine coolers, wine glasses, mixed drinks
_____ D) 3 bottles, wine coolers, wine glasses, mixed drinks
_____ E) 4 bottles, wine coolers, wine glasses, mixed drinks
_____ F) 5 bottles, wine coolers, wine glasses, mixed drinks
_____ G) 6 bottles, wine coolers, wine glasses, mixed drinks
_____ H) 7 or 8 bottles, wine coolers, etc.
_____ I) 9 or 10 bottles, wine coolers, etc.
_____ J) 11 or 12 bottles, wine coolers, etc.
_____ K) 13 or more bottles, wine coolers, etc.

9) Think of the occasion you <u>drank the most</u> <u>during the past month</u>. How much did you drink?

_____ A) Not at all during the past month       _____ G) 11-12 drinks
_____ B) 1-2 drinks                             _____ H) 13-14 drinks
_____ C) 3-4 drinks                             _____ I) 15-16 drinks
_____ D) 5-6 drinks                             _____ J) 17-18 drinks
_____ E) 7-8 drinks                             _____ K) 19 or more drinks
_____ F) 9-10 drinks

10) <u>During the past month</u>, how often did you consume five or more bottles or cans of beer, wine coolers, glasses of wine, or mixed drinks on a single occasion?

_____ A) Never                                  _____ F) Two days per week
_____ B) One time during the past month         _____ G) Three days per week
_____ C) Two times during the past month        _____ H) Four days per week
_____ D) Three times during the past month      _____ I) Five days per week
_____ E) About once a week                      _____ J) Six or seven days per week

APPENDIX G

**Young Adult Alcohol Problems Screening Test**

The next set of questions describes a number of things that can happen as a result of drinking alcohol. For each consequence of drinking, select the option that best describes your experiences.

1) Have you driven a car when you knew you had too much to drink to drive safely?
_____ A) No, never.      _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.      _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.      _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.      _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.      _____ J) Yes, 40 or more times in the past year.

2) Have you had a headache (hangover) the morning after you had been drinking?
_____ A) No, never.      _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.      _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.      _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.      _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.      _____ J) Yes, 40 or more times in the past year.

3) Have you felt very sick to your stomach or thrown up after drinking?
_____ A) No, never.      _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.      _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.      _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.      _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.      _____ J) Yes, 40 or more times in the past year.

4) Have you showed up late for work or school because of drinking, a hangover, or an illness caused by drinking?
_____ A) No, never.      _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.      _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.      _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.      _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.      _____ J) Yes, 40 or more times in the past year.

5) Have you not gone to work or missed classes at school because of drinking, a hangover, or an illness caused by drinking?

_____ A) No, never.                           _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.     _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.        _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.       _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.       _____ J) Yes, 40 or more times in the past year.

6) Have you gotten into physical fights when drinking?

_____ A) No, never.                           _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.     _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.        _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.       _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.       _____ J) Yes, 40 or more times in the past year.

7) Have you ever gotten into trouble at work or school because of drinking?

_____ A) No, never.                           _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.     _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.        _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.       _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.       _____ J) Yes, 40 or more times in the past year.

8) Have you ever been fired from a job or suspended or expelled from school because of your drinking?

_____ A) No, never.                           _____ F) Yes, 4-6 times in the past year.
_____ B) Yes, but <u>not</u> in the past year.     _____ G) Yes, 7-11 times in the past year.
_____ C) Yes, 1 time in the past year.        _____ H) Yes, 12-20 times in the past year
_____ D) Yes, 2 times in the past year.       _____ I) Yes, 21-39 times in the past
_____ E) Yes, 3 times in the past year.       _____ J) Yes, 40 or more times in the past year.

9) Have you damaged property, set off a false alarm, or other things like that after you had been drinking?

_____ A) No, never.
_____ B) Yes, but <u>not</u> in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

10) Has your boyfriend/girlfriend (or spouse), parent(s), or other near relative ever complained to you about your drinking?

_____ A) No, never.
_____ B) Yes, but <u>not</u> in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

11) Has your drinking ever created problems between you and your boyfriend/girlfriend (or spouse) or other near relative?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

12) Have you ever lost friends (including boyfriends or girlfriends) because of your drinking?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

13) Have you ever neglected your obligations, your family, your work, or school work for two or more days in a row because of your drinking?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

14) Has drinking ever gotten you into sexual situations which you later regretted?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

15) Have you ever received a lower grade on an exam or paper than you should have because of your drinking?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

16) Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcohol?
\_\_\_\_\_ A) No, never.
\_\_\_\_\_ B) Yes, but <u>not</u> in the past year.
\_\_\_\_\_ C) Yes, 1 time in the past year.
\_\_\_\_\_ D) Yes, 2 times in the past year.
\_\_\_\_\_ E) Yes, 3 or more times in the past year.

17) Have you ever been arrested, even for a few hours, because of other drunken behaviors?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

18) Have you awakened the morning after a good bit of drinking and found you could not remember a part of the evening before?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

19) Have you ever had "the shakes" after stopping or cutting down on drinking (for example, your hands shake so that your coffee cup rattles in the saucer or you have trouble lighting a cigarette)?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

20) Have you ever felt like you needed a drink just after you'd gotten up (that is, before breakfast)?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 time in the past year.
_____ D) Yes, 2 times in the past year.
_____ E) Yes, 3 or more times in the past year.

21) Have you ever found you needed larger amounts of alcohol to feel any effect, or that you could no longer get high or drunk on the amount that used to get you high or drunk?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 or more times in the past year.

22) Have you ever felt that you needed alcohol or were dependent on alcohol?
_____ A) No, never.
_____ B) Yes, but not in the past year.
_____ C) Yes, 1 or more times in the past year.

23) Have you ever felt guilty about your drinking?
  _____ A) No, never.
  _____ B) Yes, but <u>not</u> in the past year.
  _____ C) Yes, 1 or more times in the past year.

24) Has a doctor ever told you that your drinking was harming your health?
  _____ A) No, never.
  _____ B) Yes, but <u>not</u> in the past year.
  _____ C) Yes, 1 or more times in the past year.

25) Have you ever gone to anyone for help to control your drinking?
  _____ A) No, never.
  _____ B) Yes, but <u>not</u> in the past year.
  _____ C) Yes, 1 or more times in the past year.

26) Have you ever attended a meeting of Alcoholics Anonymous because of concern about your drinking?
  _____ A) No, never.
  _____ B) Yes, but <u>not</u> in the past year.
  _____ C) Yes, 1 or more times in the past year.

27) Have you ever sought professional help for your drinking (for example, spoken to a physician, psychologist, psychiatrist, alcoholism counselor, clergyman about your drinking)?
  _____ A) No, never.
  _____ B) Yes, but <u>not</u> in the past year.
  _____ C) Yes, 1 or more times in the past year.

## Religious Attitude Towards Drinking

**Mark how much you agree or disagree with the following statements about drinking alcohol.**

1) Drinking alcohol is a sin
_____ a) Strongly Disagree    _____ d) Agree
_____ b) Disagree             _____ e) Strongly Agree
_____ c) Not Certain

2) Drinking alcohol goes against my personal beliefs and values
_____ a) Strongly Disagree    _____ d) Agree
_____ b) Disagree             _____ e) Strongly Agree
_____ c) Not Certain

3) My church or religious group disapproves of drinking alcohol.
_____ a) Strongly Disagree    _____ d) Agree
_____ b) Disagree             _____ e) Strongly Agree
_____ c) Not Certain

**Peer Attitudes and Drinking Behaviors**

**Answer the following with regards to your current social situation.**

1) How do most of your friends feel about drinking alcohol?

_____ a) Strongly Disapprove        _____ e) Somewhat Approve
_____ b) Disapprove        _____ f) Approve
_____ c) Somewhat Disapprove        _____ g) Strongly Approve
_____ d) Neither Approve or Disapprove

2) How do most of your friends feel about getting drunk?

_____ a) Strongly Disapprove        _____ e) Somewhat Approve
_____ b) Disapprove        _____ f) Approve
_____ c) Somewhat Disapprove        _____ g) Strongly Approve
_____ d) Neither Approve or Disapprove

3) How often (on the average) do your friends drink alcohol?

_____ a) Never        _____ e) 2 or 3 days a week
_____ b) Less than once a month        _____ f) 4 or 5 days a week
_____ c) Once or twice a month        _____ g) 6 or 7 days a week
_____ d) Three or four times a month

**Marijuana Use Questionnaire**

1) Have you ever tried marijuana?       \_\_\_\_\_ Yes                    _____ No

2) How many times in your lifetime have you used marijuana?
       \_\_\_\_\_ 1 – 5 times
       \_\_\_\_\_ 6 – 9 times
       \_\_\_\_\_ 10 – 19 times
       \_\_\_\_\_ 20 – 39 times
       \_\_\_\_\_ 40 – 59 times
       \_\_\_\_\_ 60 – 79 times
       \_\_\_\_\_ 80 – 99 times
       \_\_\_\_\_ 100 or more times

3) How many times in the past 6 months have you used marijuana?
       \_\_\_\_\_ no use
       \_\_\_\_\_ less than once a month but at least once in the last 6 months
       \_\_\_\_\_ once a month
       \_\_\_\_\_ 2 – 3 times per month
       \_\_\_\_\_ once or twice per week
       \_\_\_\_\_ 3 – 4 times per month
       \_\_\_\_\_ nearly everyday
       \_\_\_\_\_ once a day
       \_\_\_\_\_ more than once a day

4) How many times in the past month have you used marijuana?
       \_\_\_\_\_ No use
       \_\_\_\_\_ once
       \_\_\_\_\_ twice
       \_\_\_\_\_ three times
       \_\_\_\_\_ once a week
       \_\_\_\_\_ 2 – 3 days a week
       \_\_\_\_\_ 4 – 6 days a week
       \_\_\_\_\_ once a day
       \_\_\_\_\_ more than once a day

APPENDIX K

**Cross Racial Identity Scale**

**Instructions:** Read each item and indicate to what degree it reflects your own thoughts and feelings, using the 7-point scale below. There are no right or wrong answers. Base your responses on your opinion at the present time. **To ensure that your answers can be used, please respond to the statements as written**, and place your numerical response on the line provided to the left of each question**.**

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|
| strongly disagree | disagree | somewhat disagree | neither agree nor disagree | somewhat agree | agree | strongly agree |

___ 1. As an African American, life in America is good for me.

___ 2. I think of myself primarily as an American, and seldom as a member of a racial group.

___ 3. Too many Blacks "glamorize" the drug trade and fail to see opportunities that don't involve crime.

___ 4. I go through periods when I am down on myself because I am Black.

___ 5. As a multiculturalist, I am connected to many groups (Hispanics, Asian-Americans, Whites, Jews, gays & lesbians, etc.).

___ 6. I have a strong feeling of hatred and disdain for all White people.

___ 7. I see and think about things from an Afrocentric perspective.

___ 8. When I walk into a room, I always take note of the racial make-up of the people around me.

___ 9. I am not so much a member of a racial group, as I am an American.

___ 10. I sometimes struggle with negative feelings about being Black.

___ 11. My relationship with God plays an important role in my life.

___ 12. Blacks place more emphasis on having a good time than on hard work.

___ 13. I believe that only those Black people who accept an Afrocentric perspective can truly solve the race problem in America.

___ 14. I hate the White community and all that it represents.

___ 15. When I have a chance to make a new friend, issues of race and ethnicity seldom play a role in who that person might be.

___ 16. I believe it is important to have both a Black identity and a multicultural perspective, which is inclusive of everyone (e.g., Asians, Latinos, gays & lesbians, Jews, Whites, etc.).

___ 17. When I look in the mirror at my Black image, sometimes I do not feel good about what I see.

___ 18. If I had to put a label on my identity, it would be "American," and not African American.

___ 19. When I read the newspaper or a magazine, I always look for articles and stories that deal with race and ethnic issues.

___ 20. Many African Americans are too lazy to see opportunities that are right in front of them.

___ 21. As far as I am concerned, affirmative action will be needed for a long time.

___ 22. Black people cannot truly be free until our daily lives are guided by Afrocentric values and principles.

___ 23. White people should be destroyed.

___ 24. I embrace my own Black identity, but I also respect and celebrate the cultural identities of other groups (e.g., Native Americans, Whites, Latinos, Jews, Asian Americans, gays &lesbians, etc.).

___ 25. Privately, I sometimes have negative feelings about being Black.

___ 26. If I had to put myself into categories, first I would say I am an American, and second I am a member of a racial group.

___ 27. My feelings and thoughts about God are very important to me.

___ 28. African Americans are too quick to turn to crime to solve their problems.

___ 29. When I have a chance to decorate a room, I tend to select pictures, posters, or works of art that express strong racial-cultural themes.

___ 30. I hate White people.

___ 31. I respect the ideas that other Black people hold, but I believe that the best way to solve our problems is to think Afrocentrically.

___ 32. When I vote in an election, the first thing I think about is the candidate's record on racial and cultural issues.

___ 33. I believe it is important to have both a Black identity and a multicultural perspective, because this connects me to other groups (Hispanics, Asian-Americans, Whites, Jews, gays & lesbians, etc.).

___ 34. I have developed an identity that stresses my experiences as an American more than my experiences as a member of a racial group.

___ 35. During a typical week in my life, I think about racial and cultural issues many, many times.

___ 36. Blacks place too much importance on racial protest and not enough on hard work and education.

___ 37. Black people will never be free until we embrace an Afrocentric perspective.

___ 38. My negative feelings toward White people are very intense.

___ 39. I sometimes have negative feelings about being Black.

___ 40. As a multiculturalist, it is important for me to be connected with individuals from all Cultural backgrounds

Appendix L

**Religious/Spiritual Beliefs**

1) To what extent do you consider yourself a religious person?
_____ A) Not religious at all.      _____ D) Moderately religious
_____ B) Slightly religious          _____ E) Very religious
_____ C) Somewhat religious

2) To what extent do you consider yourself a spiritual person?
_____ A) Not spiritual at all       _____ D) Moderately spiritual
_____ B) Slightly spiritual          _____ E) Very spiritual
_____ C) Somewhat Spiritual

3) Which of the following best describes your current beliefs about God:
_____ A) I know that God does NOT exist
_____ B) I am pretty confident that God does NOT exist
_____ C) I think that God probably does NOT exist
_____ D) I am not sure what to think about the existence of God
_____ E) I think that there is probably a God
_____ F) I am pretty confident that God exists
_____ G) I know that God exists

**Please choose the most accurate response to the following questions. The first set of questions refers to your participation in religious activities during the past YEAR. That is, since about this time last year.**

4) <u>During the past year</u>, how often did you attend religious services?
_____ A) Never                  _____ F) 2-3 times a month
_____ B) Once or twice         _____ G) Nearly every week
_____ C) Three or four times   _____ H) Every week
_____ D) Five to ten times     _____ I) Several times a week
_____ E) About once a month

5) <u>During the past year</u>, besides religious services, how often do you take part in other activities at a place of worship?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

6) <u>During the past year</u>, how often did you pray privately in places other than a church or place of worship?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

7) <u>During the past year</u>, how often did you watch or listen to religious programs on TV or radio?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

8) <u>During the past year</u>, how often did you read your Bible or other religious literature?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

9) <u>During the past year</u>, how often did you attend religious services?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

10) <u>During the past year</u>, besides religious services, how often do you take part in other activities at a place of worship?

_____ A) Never        _____ F) 2-3 times a month
_____ B) Once or twice        _____ G) Nearly every week
_____ C) Three or four times        _____ H) Every week
_____ D) Five to ten times        _____ I) Several times a week
_____ E) About once a month

11) <u>During the past year</u>, how often did you pray privately in places other than a church or place of worship?

_____ A) Never　　　　　　　　　_____ F) 2-3 times a month
_____ B) Once or twice　　　　　_____ G) Nearly every week
_____ C) Three or four times　　_____ H) Every week
_____ D) Five to ten times　　　_____ I) Several times a week
_____ E) About once a month

12) <u>During the past year</u>, how often did you watch or listen to religious programs on TV/ radio?

_____ A) Never　　　　　　　　　_____ F) 2-3 times a month
_____ B) Once or twice　　　　　_____ G) Nearly every week
_____ C) Three or four times　　_____ H) Every week
_____ D) Five to ten times　　　_____ I) Several times a week
_____ E) About once a month

13) <u>During the past year</u>, how often did you read your Bible or other religious literature?

_____ A) Never　　　　　　　　　_____ F) 2-3 times a month
_____ B) Once or twice　　　　　_____ G) Nearly every week
_____ C) Three or four times　　_____ H) Every week
_____ D) Five to ten times　　　_____ I) Several times a week
_____ E) About once a month

**Please choose the most accurate response to the following questions. The first set of questions refers to your participation in religious activities during the past MONTH. That is, since about this time last month.**

14) <u>During the past month</u>, how often did you attend religious services?

_____ A) Never　　　　　　　　　_____ F) Five or six times
_____ B) One time　　　　　　　_____ G) Seven or eight times
_____ C) Two times　　　　　　　_____ H) More than twice a week
_____ D) Three times　　　　　　_____ I) Nearly every day
_____ E) Once per week

15) <u>During the past month</u>, besides religious services, how often do you take part in other activities at a place of worship?

_____ A) Never　　　　　　　　　_____ F) Five or six times
_____ B) One time　　　　　　　_____ G) Seven or eight times
_____ C) Two times　　　　　　　_____ H) More than twice a week
_____ D) Three times　　　　　　_____ I) Nearly every day
_____ E) Once per week

16) <u>During the past month</u>, how often did you pray privately in places other than a church or place of worship?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

17) <u>During the past month</u>, how often did you watch or listen to religious programs on TV/radio?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

18) <u>During the past month</u>, how often did you read your Bible or other religious literature?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

19) <u>During the past month</u>, how often did you attend religious services?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

20) <u>During the past month</u>, besides religious services, how often do you take part in other activities at a place of worship?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

21) <u>During the past month</u>, how often did you pray privately in places other than a church or place of worship?

| | | | |
|---|---|---|---|
| _____ A) Never | | _____ F) Five or six times | |
| _____ B) One time | | _____ G) Seven or eight times | |
| _____ C) Two times | | _____ H) More than twice a week | |
| _____ D) Three times | | _____ I) Nearly every day | |
| _____ E) Once per week | | | |

22) <u>During the past month</u>, how often did you watch or listen to religious programs on TV/radio?

    \_\_\_\_\_ A) Never            \_\_\_\_\_ F) Five or six times
    \_\_\_\_\_ B) One time        \_\_\_\_\_ G) Seven or eight times
    \_\_\_\_\_ C) Two times       \_\_\_\_\_ H) More than twice a week
    \_\_\_\_\_ D) Three times     \_\_\_\_\_ I) Nearly every day
    \_\_\_\_\_ E) Once per week

23) <u>During the past month</u>, how often did you read your Bible or other religious literature?

    \_\_\_\_\_ A) Never               \_\_\_\_\_ F) 2-3 times a month
    \_\_\_\_\_ B) Once or twice      \_\_\_\_\_ G) Nearly every week
    \_\_\_\_\_ C) Three or four times   \_\_\_\_\_ H) Every week
    \_\_\_\_\_ D) Five to ten times      \_\_\_\_\_ I) Several times a week
    \_\_\_\_\_ E) About once a month

APPENDIX M

**Religious/Spiritual Coping**

*\*Instructions:  Think about how you try to understand and deal with major problems in your life. To what extent is each involved in the way you cope?*

*Positive Religious/Spiritual Coping*
1)  I think about how my life is part of a larger spiritual force.
  ____ A great deal
  ____ Quite a bit
  ____ Somewhat
  ____ Not at all

2)  I work together with God as partners to get through hard times.
  ____ A great deal
  ____ Quite a bit
  ____ Somewhat
  ____ Not at all

3)  I look to God for strength, support, and guidance in crises.
  ____ A great deal
  ____ Quite a bit
  ____ Somewhat
  ____ Not at all

4)  I try to find the lesson from God in crises.
  ____ A great deal
  ____ Quite a bit
  ____ Somewhat
  ____ Not at all

5)  I confess my sins and ask for God's forgiveness.
  ____ A great deal
  ____ Quite a bit
  ____ Somewhat
  ____ Not at all

*Negative Religious/Spiritual Coping*

6) I feel that stressful situations are God's way of punishing me for my sins or lack of spirituality.

_____ A great deal
_____ Quite a bit
_____ Somewhat
_____ Not at all

7) I wonder whether God has abandoned me.

_____ A great deal
_____ Quite a bit
_____ Somewhat
_____ Not at all

8) I try to make sense of the situation and decide what to do without relying on God.

_____ A great deal
_____ Quite a bit
_____ Somewhat
_____ Not at all

9) I question whether God really exists.

_____ A great deal
_____ Quite a bit
_____ Somewhat
_____ Not at all

10) I express anger at God for letting terrible things happen.

_____ A great deal
_____ Quite a bit
_____ Somewhat
_____ Not at all

APPENDIX N

**Internet Debriefing Document**

If you are reading this page you have successfully completed the internet questionnaire.

First of all, thank you for your participation in our study. Often times in research on substance use and religious or racial identity, it is necessary to withhold information regarding the hypothesis in order to prevent participants from altering their responses. However, we do not want you to leave misinformed, so we will tell you what we were actually studying.

The purpose of the present study is to investigate the role that religion and racial identity play in substance use behaviors amongst African American college students. One of the goals is to compare religiousness and racial identity and investigate how they might separately influence substance use patterns. A secondary purpose was to determine what, if any, differences there may have been between African American college students who identify as coming from the South vs. North/Midwest/East Coast, in racial identity, substance use, and religiousness.

Some of you did not receive questions regarding racial identity and when you answered the question that asks for your ethnicity, you were taken directly to questions regarding substance use and religiosity. This was not done to avoid discussing racial/ethnic identify for all other ethnicities, but rather the primary purpose of the present investigation was to determine how racial identity influences substance use in African Americans. However, the information you provided will be of great benefit to the future study of substance use patterns in college students.

We apologize that we were unable to reveal the true hypothesis to you in the beginning, but we hope that you see the necessity for keeping this information from you. In the past, when participants know the exact nature of the research, they may attempt to provide socially desirable answers, sometimes without even being aware that they are doing so. Such responding can have a negative impact on the research findings and make conclusions drawn about human experiences inaccurate. **It is for this reason that you are asked NOT to discuss this study with other students who might also be participating. Thank you again for your cooperation.**

**PRINT THIS PAGE TO CERTIFY THAT YOU HAVE SUCCESSFULLY COMPLETED THE SURVERY**

If you have any questions about your participation in this study, please feel free to ask the principal investigator: **(217) 799-1900**; email: **cmailey@indstate.edu**. Thank you for your help today.

If for any reason you were caused anxiety or distress, please contact:

Ball State University Student Counseling Center at **(765) 285-1736**
Bowling Green State University Student Counseling Center at: **(419) 372-2081**
Indiana State University Student Counseling Center at: **(812) 237-3939**
Jackson State University Counseling Center at: **(601) 979-0374**
Lincoln University Student Counseling Center at: **(573) 681-5162**

**Multiple Regression Analyses for Use Variables (Men Only)**

Table 12

*Multiple Regression for CRIS, R/S, and Alcohol Use (Men Only)*

| Variable | B | SE | Beta | P |
|---|---|---|---|---|
| R/S | -3.325 | .848 | -.456 | <.001** |
| Neg COPE | -.633 | 1.326 | -.056 | .635 |
| PA | -1.430 | .692 | -.232 | .043* |
| PM | 1.079 | .628 | .220 | .091 |
| PSH | 1.671 | .890 | .315 | .066 |
| IEAW | -.168 | .891 | -.025 | .851 |
| IA | -.818 | .666 | -.145 | .224 |
| IMCI | .568 | .846 | .084 | .505 |

*Note. N = 67; *p < .05; **p < .001. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 13

*Multiple Regression for CRIS, R/S, and Alcohol Problems (Men Only)*

| Variable | B | SE | Beta | P |
|---|---|---|---|---|
| R/S | -.222 | .068 | -.394 | .002** |
| Neg COPE | -.030 | .106 | -.034 | .781 |
| PA | -.107 | .057 | -.224 | .064 |
| PM | .096 | .051 | .252 | .067 |
| PSH | -.006 | .073 | -.014 | .936 |
| IEAW | .129 | .073 | .250 | .083 |
| IA | -.060 | .054 | -.138 | .274 |
| IMCI | .083 | .069 | .160 | .233 |

*Note. N = 67; *p < .05; **p < .01. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 14

*Multiple Regression for the CRIS, R/S, and Binge Drinking (Men Only)*

| Variable | B | SE | Beta | P |
|---|---|---|---|---|
| R/S | -.934 | .326 | -.350 | .006** |
| Neg COPE | -.043 | .509 | -.010 | .933 |
| PA | -.644 | .266 | -.285 | .019* |
| PM | .485 | .241 | .269 | .049* |
| PSH | .249 | .341 | .128 | .470 |
| IEAW | .026 | .342 | .011 | .940 |
| IA | -.464 | .256 | -.225 | .075 |
| IMCI | -.005 | .325 | -.002 | .987 |

*Note.* $N = 67$; *$p < .05$; **$p < .01$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 15

*Multiple Regression for CRIS, R/S, and Marijuana Use (Men Only)*

| Variable | B | SE | Beta | P |
|---|---|---|---|---|
| R/S | -1.017 | .437 | -.297 | .023* |
| Neg COPE | .347 | .635 | .070 | .587 |
| PA | .023 | .339 | .009 | .945 |
| PM | .286 | .304 | .128 | .352 |
| PSH | -1.260 | .438 | -.529 | .006** |
| IEAW | .848 | .435 | .293 | .057 |
| IA | -.322 | .320 | -.131 | .320 |
| IMCI | .001 | .431 | .000 | .998 |

*Note.* $N = 184$; *$p < .05$; **$p < .01$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

**Multiple Regression Analyses for Use Variables (Women Only)**

Table 16

*Multiple Regression for CRIS, R/S, and Alcohol Use (Women Only)*

| Variable | *B* | *SE* | *Beta* | *P* |
|---|---|---|---|---|
| R/S | -.542 | .482 | -.115 | .264 |
| Neg COPE | -.304 | .796 | -.039 | .703 |
| PA | -.479 | .255 | -.187 | .063 |
| PM | -.005 | .260 | -.002 | .984 |
| PSH | .309 | .355 | .099 | .385 |
| IEAW | .986 | .457 | .245 | .033* |
| IA | -.213 | .368 | -.066 | .565 |
| IMCI | .758 | .366 | .213 | .040* |

*Note. N* = 67; *\*p* < .05; *\*\*p* < .001. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 17

*Multiple Regression for CRIS, R/S, and Alcohol Problems (Women Only)*

| Variable | *B* | *SE* | *Beta* | *P* |
|---|---|---|---|---|
| R/S | -.031 | .044 | -.069 | .488 |
| Neg COPE | .175 | .073 | .237 | .018* |
| PA | -.014 | .024 | -.059 | .064 |
| PM | -.029 | .025 | -.128 | .067 |
| PSH | .028 | .034 | .094 | .936 |
| IEAW | .040 | .044 | .104 | .083 |
| IA | -.020 | .035 | -.065 | .274 |
| IMCI | .025 | .035 | .074 | .233 |

*Note. N* = 67; *\*p* < .05; *\*\*p* < .01. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 18

*Multiple Regression for CRIS, R/S, and Binge Drinking (Women Only)*

| Variable | *B* | *SE* | *Beta* | *P* |
|---|---|---|---|---|
| R/S | -.576 | .268 | -.217 | .034* |
| Neg COPE | -.279 | .443 | -.064 | .529 |
| PA | -.372 | .144 | -.257 | .011* |
| PM | .009 | .147 | .007 | .951 |
| PSH | .114 | .200 | .064 | .571 |
| IEAW | .282 | .258 | .124 | .277 |
| IA | -.017 | .208 | -.009 | .937 |
| IMCI | .200 | .206 | .100 | .334 |

*Note.* $N = 67$; *$p < .05$; **$p < .01$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement

Table 19

*Multiple Regression for CRIS, R/S, and Marijuana Use (Women Only)*

| Variable | *B* | *SE* | *Beta* | *P* |
|---|---|---|---|---|
| R/S | -.277 | .384 | -.075 | .472 |
| Neg COPE | .419 | .642 | .068 | .515 |
| PA | -.257 | .207 | -.127 | .217 |
| PM | -.378 | .211 | -.199 | .077 |
| PSH | .534 | .290 | .215 | .068 |
| IEAW | -.420 | .377 | -.133 | .268 |
| IA | .029 | .303 | .011 | .923 |
| IMCI | -.105 | .301 | -.038 | .727 |

*Note.* $N = 184$; *$p < .01$; **$p < .001$. CRIS = the Cross Racial Identity Scale; R/S = Religious/Spiritual involvement