EXAMINING THE ROLE OF HARDINESS, RACE-RELATED STRESS, AND RACIAL IDENTITY ON PSYCHOLOGICAL HEALTH OUTCOMES OF BLACK COLLEGE STUDENTS

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by

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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

EXAMINING THE ROLE OF HARDINESS, RACE-RELATED STRESS, AND RACIAL IDENTITY ON PSYCHOLOGICAL HEALTH OUTCOMES OF BLACK COLLEGE STUDENTS

presented by Jasmine Tilghman

a candidate for the degree of doctor of philosophy of counseling psychology

and hereby certify that, in their opinion, it is worthy of acceptance

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To my mother, father, siblings, extended family, and friends—I can do all things through Christ who strengthens me (Philippians 4:13).

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ABSTRACT

Hardiness is personality trait that buffers against stress-related illnesses. Researchers have further described hardiness as the willingness to pursue challenges, transform them, and make them work for an individual. Hardiness has been shown to buffer against depression, anxiety, and self-esteem (Maddi, 2002; Maddi et al., 2011; Maddi & Khoshaba, 2001). Given that the hardiness theory has been criticized in previous studies, (Benishek & Lopez, 1997), the theoretical framework of this study will be through resilience theory (Holling, Gunderson, & Ludwig, 2002). Resilience theory aims to understand the foundation and role of change that it is transforming in adaptive systems, allowing individuals to learn from past experiences and accept the inevitably of uncertainties in their future (Holling et al., 2002; Redman & Kinzig, 2003). Few studies investigate hardiness among Black populations. The few that have, showed that hardiness positively correlated with the internalized multiculturalist aspect of racial identity (Whittaker and Neville, 2010) and the commitment component of hardiness was higher among a sample of Black college students compared to White college students (Harris, 2004). Given that hardiness is a buffer to stress-related illness, theoretically, it should be a buffer against race-related stress. Race-related stress refers to the daily experiences of racism that affect members in the Black community and negatively impacts mental and physical health (Harrell, 2000; Utsey & Ponterotto, 1996). The purpose of this study was to investigate the relationships between hardiness, race-related stress, and racial identity on psychological health outcomes (i.e., depression, anxiety, self-esteem) among Black colleges students. These outcome variables were included particularly to see how they are impacted by race-related stress, and if hardiness buffers,

or moderates, these relationships. In addition, previous studies were replicated looking at the moderating role of racial identity on the race-related stress and psychological health outcomes relationship.

In another test, findings also showed that hardiness served as a moderator for both the internalized afrocentricity subscale of racial identity and the perseverative cognition subscale of race-related stress on depression. Specifically, participants who were low on hardiness and high on afrocentricity reported higher levels of depression than those were high on both hardiness and afrocentricity. Similarly, participants who were higher on hardiness and high on perseverative cognition reported lower levels of depression than those who were low in both hardiness and perseverative cognition. Through replication attempts, the anticipatory body alarm response subscale of race-related stress on trait anxiety was moderated by the immersion-emersion anti-White subscale of racial identity. Participants who were high in anti-White attitudes and high on anticipatory body alarm response reported higher levels of trait anxiety than those who were low on anti-White attitudes and low on anticipatory body alarm response. This finding replicated previous studies by Franklin-Jackson and Carter (2007) that found that the internalized stages of racial identity (i.e., afrocentricity and multiculturalist) were significant and positive buffers on the race-related stress and psychological health outcomes. However, neither the total hardiness nor the hardiness subscales scores significantly correlated with any of the race-related stress subscales.

Implications suggest that the hardiness measure may not be as generalizable to members in the Black community if considering the added layer of race-related stress because hardiness did not significantly correlate with any of the race-related stress

subscales. Hardiness may help to buffer depression the type of race-related stress and racial identity profile. In looking at racial identity stages, anxiety may be buffered when one is out of the anti-White stage of racial identity. It is recommended that University counselors, professors, and/or administrators take this into account when working with this specific population on psychological health outcomes. Further, their level of hardiness should continue to be emphasized and acknowledged as strength-based protective factors in University settings.

CHAPTER 1

INTRODUCTION

Black student enrollment in college is at an all-time high (National Center for Educational Statistics, 2009). In 1990, the percentage of Blacks enrolled in higher education was 9%, increasing to 11% in 2000, and 14% in 2009. From 1976 to 2008, the Black student enrollment rate increased 66%, which highlighted important economic, social, and personal shifts that increased their presence in higher education (NCES, 2010). Despite trends of Black student representation in higher education, literature tends to focus on deficits of or obstacles/stressors experienced by Black students at predominately White institutions (PWI) rather than protective factors that facilitate success towards their graduation (Fries-Britt and Kelly, 2005; Garcia, 1980; Negga, Applewhite, & Livingston, 2007; Ong, Fuller-Rowell, & Burrow, 2009). Of the research that examines protective behaviors among Black college students, the focus tends to be on external factors, such as transition programs and religious affiliations, and less on internal or personality factors (Boyd, Shueman, McMullan, & Fretz, 1979; Riggins, McNeal, & Hernon, 2008). The personality trait of hardiness is a buffer to stress-related events and the willingness to positively transform foreseeable stressors. This may facilitate success towards graduation. However, there is a dearth of literature exploring this connection and related to factors that contribute to impact college student success as research has predominately focused on factors that provide barriers. Resilience theory (Holling, Gunderson, & Ludwig, 2002) serves to be the framework on this study. This theory aims to understand the source and role transformational change plays in adaptive systems. Therefore, this study explores the relationship between hardiness, racial

identity, and race-related stress on psychological health outcomes among Black college students. To set the stage for this study, I first discuss race-related stress among Black college students, then explore the role of racial identity as a moderating variable to psychological distress, and finally review relevant literature on hardiness as a promising strength-based variable for Black college students.

Race Related Stress among Black College Students

One factor that threatens academic success of Black college students is race-related stress. Race-related stress is defined as the daily experiences of racism and discrimination that members of the Black community in particular experience uniquely from other racial/ethnic populations (Utsey & Ponterotto, 1996). Being a racial minority student at a predominately White institution (PWI) adds an additional layer of stress that racial majority students do not experience (Wei, Ku, & Liao, 2011). Utsey and Ponterotto's (1996) research was foundational in understanding and identifying components of race-related stress including cultural racism, institutional racism, individual racism, and collective racism. The Race-Related Stress Scale has since been revised by Utsey and colleagues in 2012 to reflect a more nuanced understanding of race-related stress and one's internal and physical processes and interpretations, namely *perseverative cognition, secondary appraisal, anticipatory race-related stress, and activated body alarm response* subscales. Race-related stress also considers whether skin color, accent, and physical features are accepted in the person-environment fit.

Research suggests that race-related stress can be encountered on the individual, cultural, institutional, and collectivistic levels of racism. For example, Harrell (2000) found that Blacks experience stress across interpersonal (i.e., direct and vicarious

experiences of racism), collective (e.g., educational achievement, unemployment rates), cultural-symbolic (e.g. news, media), and sociopolitical contexts (e.g., public discussion about race in the political, legislative, institutional contexts). Compared to other racial/ethnic populations (i.e., White, Latino, Asian, Native American), Blacks have endorsed more individual-level and cultural-level race-related stress with equal race-related stress at the institution level (Utsey et al., 2002).

The impact of race-related stress has been found to have negative and profound mental and physical health effects on members in the Black community (Harrell, 2000). Utsey and colleagues (2012) suggest that Blacks have higher rates of stress-related health disparities compared to any other ethnic/racial group and in part because of chronic exposure of race-related stress (Utsey et al., 2012). Race-related stress may be a chronic life stressor for Blacks increasing stress-related mental and physical health disparities (Franklin-Jackson & Carter, 2007; Harrell, 2000; Utsey & Ponterotto, 1996). Psychological distress, including anxiety, depression, dissatisfaction with life, and low self-esteem, among Blacks has been found to correlate with racial adversity (Carter, Forsyth, Mazzula, & Williams, 2005; Prelow, Mosher, & Bowman, 2006; Utsey, Chae, Brown, & Kelly, 2002; Whittaker & Neville, 2010). The impact of race-related stress has differed based on coping strategies and environmental factors experienced in the Black population (Greer & Brown, 2011). Scholars have found that not all Black participants perceived race-related stress or have negative health outcomes as a result of racism, which suggests that a stressful reaction depends on the person's perception of the racial event and/or how the person copes with the event (Carter et al., 2005; Franklin-Jackson & Carter, 2007; Utsey et al., 2000).

Racial Identity among Black College Students

Another factor that may affect a student's academic success is where they are in their racial identity development. Black racial identity in particular, is defined as the process by which an individual of African descent understands his/her racial self-concept within a race-based society (Cross, 1971; Whittaker & Neville, 2010). Racial identity in this study is conceptually based on Cross's Nigrescence model of racial identity (1971). Cross described racial identity within African Americans as the development of identities ranging from a pro-White assimilation stance to a pro-Black stance (Cross, 1971; Worrell, Vandiver, Schaefer, Cross, & Fhagen-Smith, 2006). The expanded Nigrescence theory (NT-E) (Vandiver, Fhaghen-Smith, Cokley, Cross, & Worrell, 2001) identifies six identities including *pre-encounter assimilation, pre-encounter self-hatred, and pre-encounter miseducation, immersion-emersion anti-White, internalization Afrocentric, and internalization multiculturalist* (Vandiver et al., 2001; Vandiver, Cross, Worrell, & Fhagen-Smith, 2002).

Researchers have found that individuals in the pre-encounter and encounter stage experienced more negative psychological impact such as a lower psychological well-being, self-esteem, and increased depressive symptoms (Pyant & Yanico, 1991; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003). Among a sample of 255 Black adults, Franklin-Jackson and Carter (2007), found that both racial identity and race-related stress predicted mental health, but racial identity accounted for more of the variance in mental health. Researchers have also found there to be low levels of self-actualization and greater feelings of inferiority associated with the pre-encounter stage (Cross, Parham, & Helms, 1998). The immersion-emersion stage was found to have associations with

psychological distress, anger, or race-related stress (Carter, Pieterse, & Smith, 2008; Cross et al., 1998; Whittaker & Neville, 2010). The literature seems to generalize that having a less internalized positive racial identity relates to greater psychological distress (Whittaker & Neville, 2010). In addition, scholars have noted that having an internalized Black racial identity could buffer against the negative impact of racism on psychological well-being (Cross et al., 1998; Whittaker & Neville, 2010). Specifically, Cross et al., (1998) found higher levels of self-esteem and self-actualization among Blacks who endorsed a positive internalization of Blackness.

Hardiness as a Protective Factor for Black College Students

This internalization of Blackness could be one of the ways Black college students buffer against stressors and psychological distress. Given that hardiness has also been referred to as the pathway to resiliency (Maddi, 2005; Maddi et al., 2012), studies have also demonstrated resiliency among Black college students (Shilling, 2008). Holmes and Rivera (2004) discovered that students of color must empower themselves when others in the academy do not. Black undergraduate students report that they must rely on family support (Schilling, 2008), mentors (Grant & Simmons, 2008), spirituality (Patton & McClure, 2009), collectivism (Carson, 2009), and have a positive racial identity (Helms & Parham, 1990) in order to successfully graduate. Black graduate students who report experiencing stress during their programs utilized the above coping strategies to buffer stress (Lewis, Ginsberg, and Davies, 2004; Torres, Driscoll, and Burrow, 2010). Specifically, when students learn how to navigate the University/Institutional system to achieve the positive experience they want to have, they seem to gain some control in their experience (Gasman et al., 2008; Lewis et al, 2004) and utilization of coping strategies.

Based on the extant findings related to Black college student's academic success, exploring internal coping strategies or personality factors that promote coping, such as hardiness, may allow for further understanding of how internal mechanisms influence academic success and how those internal processes differ from majority populations. Though there has been a vast amount of hardiness literature to date, there is paucity of research examining hardiness among racially and ethnically diverse samples, especially considering the added layer of race-related stress.

Hardiness among college students. For the past 30 years, hardiness has been a personality construct that measures one's willingness to confront stressful life events or adversity. Hardiness is defined as the willingness to pursue stressors and transform them into working for you instead of against you (Kobasa, 1979). Hardiness considers one's own personal control, commitment, and challenges that may influence both positive appraisal and actions taken in response to the stressful event (Kobasa, 1979). More specifically, a person who is strong in *commitment* stays involved with the world around them, without retreating during tough times, because that is what is meaningful in their life. A person who is strong in *control* continues to strive for personal influence on the outcomes around them, without feeling powerless and passive thru difficult outcomes, because it keeps them involved in their life. A person strong in *challenge* accepts that stress and change are inevitable aspects of life, using those aspects as opportunities to grown, learn, and find new meaning, without expecting the journey to be easy, secure, and unchanging (Maddi, Harvey, Khoshaba, Lu, Persico, & Brow, 2006). The interaction of all three defines hardiness as having motivation to face stressors openly and directly, and constructively work through them (Khoshaba & Maddi, 1999; Maddi, 2002). The

greater the hardiness, the more commitment one has and enjoyment one feels about their experiences, the more control they perceive having in choosing their experiences, and the greater sense one has of learning through their experiences.

In the setting of higher education, hardiness has been found to be a vital predicting factor to university retention and stress reduction. Based on their research, Maddi, Harvey, Khoshaba, Fazel, and Resureccion (2009b; 2012) suggested that hardiness serves as a central factor in school performance. Kafka-Tisdall (2001) found that among 185 college students (50% minority), hardiness was negatively correlated with poor college adjustment, which supports hardiness as having some relevancy with academic success. Sheard (2009) found that the commitment component of hardiness was significantly predictive of academic achievement (final GPA) among 134 undergraduates (race/ethnicity unspecified). In a sample of 356 predominately White college students, interaction effects between hardiness and students' initial learning motivation were found to influence post-learning motivation (Cole, Feild, & Harris, 2004). This study demonstrated that not only does hardiness interact with other factors, but that it may also have a direct effect on motivation later on. In other research, hardiness was shown to have a significant moderating role in the relationship among stress and depression (Pengilly & Dowd, 2000). Specifically, individuals with high levels of stress and who also scored high on the commitment subscale of hardiness showed lower levels of depression. Hystad, Eid, Laberg, Johnsen, and Bartone (2009) found that in a study with 213 participants, hardiness moderated the relationship between academic stress and health (somatic and psychological). Less research has been conducted on hardiness among racially and ethnically diverse populations.

Hardiness among Black college students. There are some notable studies that examine hardiness and racial identity among Black college students. Whittaker and Neville (2010) examined the relationship between racial identity attitudes and mental health, including hardiness, among a sample of 317 Black undergraduates. Through cluster analysis, results suggested that individuals in the multiculturalist (those open to multicultural work and collaboration) cluster of racial identity development had higher levels of hardiness than individuals in the immersion (pro-Black/anti-White) cluster. Thus, the more culturally aware one is of their racial/ethnic identity and open to other cultural groups, the more hardiness they exhibit toward success in an academic setting. Though hardiness on psychological outcomes was not a main hypothesis, it was found to be significant and positively related to other measures of psychological well-being including satisfaction with life and general mental health status. Comparatively, Harris (2004) explored health value, or health protective behaviors, and the hardiness components of commitment and control among Black and White college students. Findings of this study showed that Black students with greater levels of hardiness exhibited higher health behaviors and lower tobacco and drug use compared to White students. Taken together, these findings suggest that hardiness may be operating differently a) among Black college students compared to their White counterparts, and b) given where they are with regard to their racial identity. However, both studies do not consider race-related stress as a factor affecting one's health and how hardiness may buffer race-related stress. Researchers expressed "it seems logical that a certain level of hardiness is needed to develop a positive racial identity that will protect against stressors" (Whittaker & Neville, 2010, p. 388) in this case, race-related stressors. Black college

students have been underrepresented in studies of hardiness in general, and even less in the academic setting. Consequently, the foreseeable outcomes of hardiness within the Black population are virtually unknown (Harris, 2004). Because of this, there is a need to study hardiness among Black college students while also considering the added layer of race-related stress and racial identity.

Conclusion, Rationale, and Purpose

Three main summaries gathered from the literature connect race-related stress, racial identity, and hardiness in order to understand the impact on Black student academic success. First, research consistently demonstrates that some Black college students may be frequently experiencing race-related stress, which may place demands on them to continuously pursue challenges, face obstacles, and deal with daily hassles within the context academic institutions (Franklin-Jackson & Carter, 2007; Gasman, Hirschfield, & Vultaggio, 2008; Williams, Brewley, Reed, White, & Davis-Haley, 2005). Secondly, race-related stress (Utsey & Ponterotto, 1996; Utsey et al., 2012), racial identity (Cross, 1971; Helms & Parham, 1990; Worrell et al., 2004), and the relationship between the two, have all been associated with various mental health consequences (Franklin-Jackson & Carter, 2007). Lastly, while much literature has begun to explore other protective factors among Black college students (Fries-Britt &Kelly, 2005; Lett & Wright, 2003; Lewis, Ginsberg, & Davies, 2004; Ong et al., 2009), little research has focused on hardiness (Kobasa, 1979ab; Maddi, 2005; Maddi et al, 2011) as a potential protective factor for Black students, despite its consistent connection to academic success within other populations.

Through the lens of resilience theory, the purpose of this study attempted to address the gaps in the literature by investigating the relationships between hardiness, racial identity, and race-related stress on psychological health outcomes (i.e., depression, anxiety, self-esteem) among Black college students.

Based on the literature, the following hypotheses are posited:

1. Hardiness will significantly relate to psychological health outcomes (e.g., depression, anxiety, self-esteem) and race-related stress for Black college students. Specifically, a negative relationship will exist between hardiness and depression and hardiness and anxiety, while a positive relationship will exist between hardiness and self-esteem.
2. Based on previous literature, hardiness will moderate the relationship between internalized subscales of racial identity (i.e., afrocentricity and multiculturalist) and psychological health outcomes (i.e. depression, anxiety, self-esteem) (Whittaker & Neville, 2010).
3. Based on resilience theory (Holling, Gunderson, & Ludwig, 2002), hardiness will moderate the relationship between race-related stress subscales (i.e., perseverative cognition, secondary appraisal, anticipatory race-related stress, anticipatory body alarm response) and psychological health outcomes (e.g. depression, anxiety, self-esteem).
4. This study will replicate previous research findings related to racial identity, race related stress, and psychological outcomes. Specifically:
    a. Internalized racial identity stages (i.e., afrocentricity, multiculturalist) will significantly correlate with psychological health outcomes (e.g.,

depression, anxiety, self-esteem) for Black college students. Specifically, a negative relationship will exist between internalized racial identity profiles and depression and anxiety, while a positive relationship will exist between internalized racial identity profiles and self-esteem.

b. Race-related stress will significantly relate to psychological health outcomes (e.g. depression, anxiety, self-esteem) for Black college students. Specifically, a negative relationship will exist between race-related stress and self-esteem, while a positive relationship will exist between race-related stress and depression and anxiety.

c. Based on resilience theory, racial identity subscales will moderate the relationship between race-related stress subscales and psychological health outcomes (e.g. depression, anxiety, self-esteem) for Black college students. Specifically, a negative relationship will exist between race-related stress and self-esteem, while a positive relationship will exist between race-related stress and depression and anxiety. However, based on previous findings in the literature, these relations will be stronger for individuals with internalized racial identity profiles of afrocentricity and multiculturalist in comparison to other racial identity profiles (Whittaker & Neville, 2010).

CHAPTER 2

METHOD

Participants

Participants were self-identified Black college students (*N* = 214). The sample was predominately women (*n* = 159, 75% women; *n* = 54, 25% men; n = 1, 0.5% transgender). Participants ranged in age from 18-68 years old (*M* = 27.05, *SD* = 9.36). All participants attended four-year universities at either a predominately White institution (PWI) (*n* = 162; 75.7%), historically Black college or university (HBCU) (*n* = 47; 22%), or other (*n* = 5; 2.3%). Among undergraduates (*n* = 105; 49.1%), the majority of participants indicated that they were seniors (*n* = 53, 24%), while the rest were juniors (*n* = 15, 7%), sophomores (*n* = 21, 10%), and freshmen (*n* = 16, 7%). Non degree-seeking post-baccalaureate students represented 4% of the sample (*n* = 8). Among graduate students (*n* = 105; 49%), 17% (*n* = 36) indicated they were in a master's program, 27% (*n* = 58) were working on their doctorate and degree, and 1% (*n* = 3) were working towards a Law or Medicine degree. Lastly, 2% (*n* = 4) of participants reported either working on a dual degree or other program.

Of those who described their sexual orientation, the majority of participants identified as Heterosexual (*n* = 198, 92%). Other reported orientations included Bisexual (*n* = 7, 3%), Gay (*n* = 6, 3%), Lesbian (*n* = 1, 0.5%), Queer (*n* = 1, 0.5%), and one participant chose 'other,' but did not specify sexual orientation. Nearly 75% of the sample reported having financial aid to help support their education (*n* = 160; 74.8%). Mother's education level was as follows: a high school diploma or GED (*n* = 55, 26%), some college or Associates level degree (*n* = 60, 28%), or a college degree (*n* = 45, 21%).

Similar trends were reported for father's education level, though more fathers had a graduate degree (*n* = 31, 15%). Forty-five percent of participants reported being a first generation college student (*n* = 98, 45%), 29% reported being first generation graduate student (*n* = 62, 29%), and 23% reported being a first generation PhD student (*n* = 49, 23%). Regionally, the majority of participants were from the U.S. Midwest (*n* = 103, 47%), followed by the Southwest (*n* = 22, 10%), and Southeast (*n* = 42, 20%). These regions may have been interpreted as permanent addresses to the participants or where they currently attend school, or both. Among degrees sought by participants, the majority were in Social Science disciplines (*n* = 62, 29%), followed closely by the Humanities (*n* = 51, 24%) and Education (*n* = 33, 15%).

Recruitment. Participants were recruited though snowball sampling at large universities. The university demographics included approximately 58 public, private, campus, and online institutions across the US. Upon IRB approval, a link to the survey including informed consent was sent over University listservs with higher probability of targeting Black college students (i.e., Black student governments and/or organizations, Black culture centers, Black Studies Programs) and other gatekeepers of academic departments (i.e., administrators, training directors, and deans). In addition, given the advancement of social networks, a link to the survey was also provided on Facebook to increase chances of reaching Black college students. Remuneration for participation consisted of a raffle for 1 of 5 $100 cash prizes that were awarded to participants at random upon completion of data collection.

Measures

Demographic questionnaire. A demographic form asked participants to indicate their age, year in school, degree program, regional location, needs-based financial assistance, first generation college student status, gender, ethnicity, race, sexual orientation, GPA, parental education level, and need based financial assistance. A complete list of demographic characteristics is found in Table 3.

Predicting Variables. ***Race related stress.*** The Prolonged Activation and Anticipatory Race-related Stress Scale (PARS; Utsey, Belvet, Hubbard, Fischer, Opare-Henaku, & Gladney, 2012), a 17-item self-report, was used to measure prolonged activation and the anticipatory stress response in African Americans. The PARS is designed to measure four subscales including *perseverative cognition (PC)* ("I would think about my experience with racism even when I didn't mean to"), *secondary appraisal (SA)* (Black people have always had to deal with these kinds of events/situations, so my experience with racism was something I could manage"), *activation race-related stress (RRS)* ("I believe that most Black people will experience some form of racism in the future"), *and anticipatory body alarm response (ABAR)* ("I get chest pains whenever I think I am about to experience racism"). Respondents use a 7-point Likert-scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The PARS was found to have test-retest of subscales ranging from .70-.85, and a composite Cronbach's alpha score of .78 was found among Black participants (Utsey et al., 2012). This study had Cronbach's alpha coefficients of subscales ranging from .82-.86.

Racial identity. The Cross Racial Identity Scale (CRIS; Worrell, Vandiver, & Cross, 2004) was used to assess the racial identity attitudes and beliefs of participants. The CRIS consists of a 40-item scale designed to measure six subscales including

preencounter assimilation (PA) ("I think of myself primarily as an American and seldom as a member of a racial group"), *preencounter miseducation (PM)* ("Blacks place more emphasis on having a good time than on hard work"), *preencounter self-hatred (PSH)* ("I sometimes struggle with negative feelings about being Black"), *immersion-emersion anti-White (IEAW)* ("I hate White people"), *internalization Afrocentric (IA)* ("I believe that only those Black people who can accept an Afrocentric perspective can truly solve the race problem in America"), *and internalization multiculturalists inclusive (IMCI)* ("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"). Responses for the CRIS are rated on a 7-point Likert-scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The reliability of the CRIS subscales has been shown to range between .76-.89 for college students (Whittaker & Neville, 2010; Worrell et al, 2006) and .70-.85 for adults (Worrell, Vandiver, Cross, & Fhagen-Smith, 2004). The CRIS has been shown to have test-retest reliability of subscales ranging from .70-.88 (Worrell et al., 2004). This study had Cronbach's alpha coefficients of subscales ranging from .78-.89. This variable served as a moderating variable for secondary analyses.

Primary Moderating Variable. ***Hardiness.*** The Personal Views Survey (PVS III-R; Maddi & Khoshaba, 2001) was used to assess the general construct of hardiness and resilience among participants. The PVS III-R is an 18-item self-report measure that assesses the three components of hardiness or "attitudes." These three components include *commitment* ("I often wake up eager to take up life wherever it left off"), *control* ("When I make plans, I'm certain I can make them work"), and *challenge* ("Changes in routine provoke me to learn") (Maddi, 2005). Responses are rated on a 4-point Likert-

scale ranging from 1 = *not at all true* to 4 = *very true* with higher total scores indicating a higher level of hardiness. The PVS III-R has been used with college students and shown to have Cronbach's alpha coefficients for the subscales have ranging from .70-.75 for commitment, .61-.84 for control, and .60-.71 for challenge (Maddi & Hightower, 1999). The PVS III-R has been shown to have test-retest stability .71 over a 3-week period (Maddi & Khoshaba, 1999) and has been used with Black college students in one other study with an alpha coefficient of .76 (Whittaker & Neville, 2010). This study had Cronbach's alpha coefficients of subscales ranging from .47-.62, and a composite alpha of .77. The .47 was associated with the control subscale of this construct and serves as a limitation in this study.

Psychosocial Outcome Variables. ***Depression*****.** The Center for Epidemiologic Studies Depression Scale Revised (CES-D; Radloff, 1977), is a 20-item self-report instrument used to measure several symptoms of depression. The CES-D is one of the most widely used self-report measures for depression that is made available to the public. Sample items include "I felt that everything I did was an effort," "I felt that I could not shake off the blues even with help from my family and friends," "I thought my life had been a failure," and "I felt lonely." Responses are rated on a 4-point Likert scale ranging from 0 (*rarely or none of the time*) to 3 (*most of or all of the time*). Higher scores indicate greater levels of depression. The CES-D has been shown to have test-retest reliability scores between .45-.70 (Radloff, 1977). It has been shown to have strong reliability (r = .90) with an African American college sample (Kimbrough, Molock, & Walton, 1996). This study had a Cronbach's alpha coefficient of .72.

Anxiety. The State Trait Anxiety Inventory (STAI: Spielberger, Gorsuch, & Lushene, 1970) consists of 40 items that measure anxiety proneness (trait) and the current level of tension and apprehension (state). Sample items from anxiety-state scale include "I am presently worrying over possible misfortunes," "I feel nervous," and "I feel strained." Sample items from the anxiety-trait scale include "I feel nervous and restless," "I wish I could be as happy as others seem to be," and "I have disturbing thoughts." Respondents rate individual items on a scale ranging from 1 = *not at all* (state) or *almost never* (trait) to 4 = *very much so* (state) to *almost always* (trait). Higher scores on STAI indicate higher levels of anxiety. The STAI-T have been used frequently with college students and have been shown to have a Cronbach's alpha coefficient that ranges between .86-.92 (Spielberger et al, 1970). The STAI-S have also been shown to have test-retest reliability between .16 - .62 (Barnes, Harp, & Jung, 2002) and have shown construct validity through its positive correlations with other measures of anxiety. In addition, a Cronbach's alpha of .92 was found using the STAI-T subscale with Black college sample in a study by Mobley, Slaney, & Rice, (2005). The present study used both subscales in its analyses and had Cronbach's alpha coefficients of subscales ranging from .91-.94.

Self-esteem. The Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965, 1979) is a 10-item measure to assess self-esteem and a general sense of self-worth in this study. Sample items include "I feel I have a number of good qualities," "I take a positive attitude toward myself," and "I am able to do things as well as most other people." Responses are reported on a 4-point Likert-scale that ranges from *strongly disagree* to *strongly agree*. Higher scores indicate a greater level of self-esteem. The RSES has been shown to have internal consistency scores ranging from .86-.93 (Goldsmith, 1986) and

test-reliability of .82- .85 over a 2-week period (Brummett, Wade, Ponterotto, Thombs, & Lewis, 2007; Crandall, 1973). The RSES has also been shown construct validity through its positive correlations with other measures of self-esteem and has also been deemed the most valid measure of global self-esteem through its association (Guindon, 2002). Furthermore, convergent and discriminant validity has been supported with measures of neuroticism, extraversion, and romantic attachment styles (Schmitt & Allik, 2005). The Cronbach's alpha of .86 of this scale was found with a Black college sample in a study by Mobley et al. (2005). This study had a Cronbach's alpha coefficient of .92.

Procedures

Institutional Review Board (IRB) approval at the University of Missouri-Columbia was obtained prior to participant recruitment and data collection. In order to participate in the current study, participants were required to be 18-years old or older, identify as Black or African American, and be currently enrolled in college. Data collection occurred from February 2013 to December 2013 using an online electronic survey through Qualtrics ® software. Informed consent and the purpose of the study were included in the online survey prior to beginning the study. Participants were forced to choose a response rather than leave questions incomplete. A resource list was provided at the end of the survey including support services and contact information for the researcher should questions arise. No known concerns arose with individual participants during the duration of data collection.

Data Analyses

Hierarchical Multiple Regression through SPSS version 21.0 was used to test multiple hypotheses. This analysis is a version of multiple regression that allows

specifying a fixed order of entry for variables to control for the effects of covariates. This analysis also allows the capability to test effects of certain predictors independent of the influence of others (Wampold & Freund, 1987). For all hypotheses, hardiness, race-related stress, and racial identity profiles were the predictor variable(s) and/or moderating variable; and the psychosocial constructs including depression, anxiety, and self-esteem were the outcome variables.

Moderation analyses were conducted in this study using Process macro for SPSS developed by Hayes (2013). Baron and Kenny (1986) provide an assumption test in order to determine moderated effects in models including the Sobel Test (Sobel, 1982). For moderators, this test states that a hypothesis is supported if the interaction path is significant. Moderating research questions or hypotheses address "when" or "for whom" a variable predicts/causes an outcome variable, and significantly affects the direction or strength between the predictor-outcome relationships (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004, p. 116). Moderators are also called interaction terms because in this analysis, the effect of one predictor variable on the outcome variable depends on the level (or interaction) of another variable, which is also called the zero-order correlation (Baron & Kenny, 1986; Frazier et al., 2004). Moderators can increase our understanding of an important predictor-outcome relationship and are important in psychological research (Frazier et al., 2004). Frazier et al., (2004) suggests that moderators are the rule rather than the exception in psychological research and that the choice to use moderation analyses should be based on resilience theory that a moderating variable will provide evidence for why a predictor-outcome relationship may be stronger for some people than for other people.

Frazier et al, (2004) discuss the importance of either centering or standardizing continuous variables in moderation analyses given that generally predictor and moderator variables are highly correlated with the interaction term. Centering refers to changing means to deviation units by subtracting sample means to produced new means of zero. Standardizing variables, or z-scoring, essentially produces similar effects, however, z-scores are easier to work with in moderation analyses including plotting, substituting, and interpreting (Frazier et al., 2004). For this study and in accordance with having zero-order effects (Baron & Kenny, 1986; Frazier et al., 2004; Hayes, 2013), an interaction term for hardiness was created with both race-related stress and racial identity using standardized z-scores. Race-related stress was regressed on psychological health outcomes, and then the interaction effect of hardiness × race-related stress on psychological health outcomes (i.e., depression, anxiety, and self-esteem) was measured. In addition, racial identity profiles was regressed on psychological health outcomes, then the interaction effect of hardiness × racial identity profiles on psychological health outcomes (i.e., depression, anxiety, and self-esteem) was measured.

G*Power analyses (Faul, Erdfelder, Lang, & Buchner, 2007) were conducted to determine the effect size of the overall model and considering the continuous variables as moderators. Frazier, Tix, and Barron (2004) stated that a low power effect size would range between .20-.34 which is much lower than the ideal size of .80. Aguinis (1995) suggest the larger the *N*, the greater the effect size. Given the sample size, the power of this study is $d = .80$. In addition, given that the categorical variables such as gender were used in analysis, the unequal distribution of men (N=54) and women (N=159) may also be negatively impacting the power (Aiken & West, 1991; Cohen, 1992). Homogenous

error assumption is said to be violated about half the time. As for continuous variables and outcome variables, researchers caution that the reliability of each measure should be sound (Frazier et al, 2004).

CHAPTER 3

RESULTS

Data Cleaning

Quality check and missing data. Prior to evaluating the statistical assumptions for the present study's data analysis procedures, missing data analysis was conducted for the total sample. Participants, who entered the survey and withdrew after completing the informed consent form prior to starting, or withdrew before completing any single measure or scale, were removed (n = 1). To check for univariate outliers, variables were converted into z scores in order to determine participant responses that deviated from the mean. Those responses that fell between -4.20 and 4.20 standard deviations from the mean were included. Those that fell out of that range (n = 13) were noted, but were kept in the full sample given that the outliers were all less than one SD beyond 3.20. Variables that included outliers included self-esteem (3), the commitment subscale of hardiness (1), total hardiness (1), the pre-encounter self-hatred subscale of racial identity (1), the immersion-emersion anti-White subscale of racial identity (3), the internalization multiculturalist inclusive (3), and the anticipatory body alarm response subscale of race-related stress (1). A thorough examination of the participant responses was conducted, and responses did not visually appear to be irregular (e.g., responding with all 1s or all 7s across their responses). After further review of the racial/ethnic makeup of the participants, those who did not identify as either Black or biracial with Black being a part of their ethnic identity, were also removed (n = 9). Once these nine participants were removed, there was a total usable sample of 214 participants, upon which the results are based. According to G*Power, 146 participants were needed for a high power (d = .80;

$p < .05$) given the 17 variables used in multiple regression (3 for moderation; 14 for correlation).

Statistical assumptions tests. Tests for multicollinearity and reliability of measures were conducted in order to determine that the remaining data met the statistical assumptions for running Hierarchical Multiple Regression and Moderation. Multicollinearity was tested using the Variance Inflation Factor (VIF). VIF's greater than 3 indicate the possibility of multicollinearity, while VIF's greater than 5 indicates multicollinearity was found (O'Brien, 2007). All VIF's in the current sample were below 3. The reliability of measures was assessed via Cronbach's alpha, and most measures were deemed reliable based on the reliabilities of the current sample (see Table 1).

The Kolmogorov-Smirnov (Doob, 1949) and Shapiro-Wilk (Shapiro & Wilk, 1972) tests were conducted, as it is the best-known test for normality in SPSS. This test accepted the null hypothesis that the data is not normally distributed. However, most choose not to use this test because depending on whether you have a large sample size (Kolmogorov-Smirnov; $N > 50$) or a small sample size (Shapiro-Wilk; $N < 50$), the test may accept the hypothesis for normality. On the other hand, the Q-Plot, Box-plot, Bar Chart, and Histogram graphs were formed as visual representations of normality. These representations visually showed the data being close to normal distribution. The skewness and kurtosis of these graphs also indicated the data was very close to zero meaning that the data was very close to normal distribution, with a few exceptions. The skewness and kurtosis of each variable is listed below in Table 1.

Table 1
Skewness and Kurtosis of Variable Measures

Variable	Skewness	Kurtosis
Personal Views Survey III-R		
Commitment	-.49	-.07
Challenge	-.52	-.20
Control	-.34	-.23
Total Score	-.50	.10
Cross Racial Identity Scale		
Assimilation	.90	.02
Miseducation	.45	-.77
Self-Hatred	1.58	1.56
Anti-White	1.88	3.10
Afrocentricity	.46	-.27
Multiculturalist	-1.40	2.15
Prolonged Anticipatory and Activation Race-Related Stress Scale		
Perseverative Cognition	.04	-.92
Secondary Appraisal	-.32	-.68
Race-related Stress	-.94	.72
Body Alarm Response	1.02	.41
Rosenberg Self-Esteem Scale	-1.38	2.03
Center for Epistemological Studies-Depression	.76	.73
State-Trait Anxiety Inventory	.56	-.29
	.53	-.53

Note: Skewness and Kurtosis of variable total and subscale scores.

Preliminary Analyses

Mean differences and bivariate correlations. Means, standard deviations, ranges and correlations for hardiness, racial identity, race-related stress, depression, anxiety, and self-esteem for the full sample are presented in Table 2. There were statistically significant differences between some groups (i.e., academic year, gender, university type, academic field) within the sample on depression and trait anxiety outcomes (see Table 3).

Bivariate correlations were examined to explore relations among variables including total and subscale scores (see Table 2). Hardiness total score correlated with five of the six racial identity subscales (i.e., pre-encounter miseducation, pre-encounter,

pre-encounter self-hatred, immersion-emersion, internalized afrocentricity, and internalized multiculturalist). Four racial identity subscales were significantly and negatively correlated with hardiness subscales (commitment, challenge, control). Internalized afrocentricity was significantly and negatively correlated with the commitment (r = -.09) and challenge (r = -.17) subscales of hardiness. However, the internalized multiculturalist inclusive subscale of racial identity was significantly and positively correlated with the commitment (r = .20) and control (r = .18) hardiness subscales, and not significantly correlated with the challenge subscale of hardiness. The hardiness subscales commitment, control, and challenge were also correlated with all three psychological health outcomes at the $p < .01$ levels: depression (r = -.35, -.26, -.26), state (r = -.55, -.45, -.35), trait anxiety (r = -.68, -.48, -.49), and self-esteem (r = .35, .28, .26) respectively. None of the four race-related stress subscales were significantly correlated with any of the hardiness subscales. Based on these results, significantly correlated subscales will be used in the main analyses.

After testing demographic characteristic effects on the psychological health outcome variables of depression, anxiety, and self-esteem, age was found to be significantly correlated with hardiness, race-related stress subscales, depression, and anxiety ($p < .05$), but not self-esteem. Academic year was significantly correlated with all psychological health outcomes ($p < .05$). University type was significantly correlated with depression ($p < .05$), but not for anxiety and self-esteem. Other demographic characteristics were not significantly correlated with any psychological health outcome. Therefore, age, academic year, and university type will be treated as covariates in further analyses.

Table 2.

Full Sample: Means, Standard Deviations, Ranges, and Correlations Among the Measured Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.COMM	**.61**																
2.CHALL	.50**	**.62**															
3.CONT	.53**	.36**	**.47**														
4. RSES	.35**	.28**	.26**	**.92**													
5. CESD	-.35**	-.26**	-.26**	.27**	**.72**												
6. STAIS	-.55**	-.45**	-.35**	-.33**	.48**	**.94**											
7. STAIT	-.68**	-.48**	-49**	-.44**	.51**	.78**	**.91**										
8. PPC	-.00	-.12	-.10	-.03	.20**	.16*	.17*	**.86**									
9. PSA	.10	.10	.07	.05	-.02	-.11	-.15*	-.23**	**.86**								
10.PARRS	-.05	.00	-.09	.03	.05	.12	.09	.48**	.09	**.82**							
11. ABAR	-.01	-.13	-.04	.09	.21**	.26**	.22**	.26**	-.04	.28**	**.86**						
12. PA	-.10	.01	.10	.00	.09	-.02	-.02	-.28**	-.01	-.40**	-.13	**.86**					
13. PM	-.21**	-.10	-.12	-.25**	.23**	.17*	.17*	-.20**	.13	-.18**	-.01	.39**	**.82**				
14. PSH	-.20**	-.25**	-.11**	-.21**	.24**	.25**	.30**	.18**	-.07	-.01	.11	.20**	.31**	**.89**			
15.IEAW	-.23**	-.23**	-.17*	-.13	.35**	.21**	.28**	.26**	-.01	.16*	.24**	-.11	.02	.28**	**.86**		
16. IA	-.09**	-.17*	-.03	-.06	.31**	.20**	.22**	.26**	-.01	.26**	.28**	.12	.22**	.22**	.40**	**.78**	
17. IMCI	.20**	.09	.18**	.03	-.05	-.09	-.18*	.05	.21**	.23**	.10	-.06	-.02	-.12	-.21**	.06	**.85**
M	13.00	13.56	11.31	32.59	40.68	38.79	40.00	19.64	17.72	20.10	9.28	12.62	14.21	9.51	8.48	14.43	28.72
SD	2.74	2.39	3.04	6.83	7.12	12.26	11.43	7.68	6.45	5.39	5.68	7.36	6.70	6.50	5.10	5.80	6.01
Range	4-18	7-18	3-18	10-40	20-63	20-75	20-69	5-35	4-28	4-28	4-28	5-35	5-31	5-32	51-27	5-30	5-35

Note. * = p < .05; ** p = .01. Cronbach's alpha coefficients are presented in bold across the diagonal. COMM = Hardiness subscale: commitment; CHALL = Hardiness subscale: challenge; CONT = Hardiness subscale: control; RSES = Self-esteem; CES-D = Depression; STAIS = Anxiety subscale: state; STAIT = Anxiety subscale: trait; Race-related stress: Perseverative Cognition (PPC); Race-related stress: Secondary Appraisal (PSA); Race-related stress: Anticipatory Race-Related Stress (PARRS); Race-related stress: Body Alarm Response (ABAR); CRIS1 = Racial Identity subscale: Pre-encounter Assimilation (PA); CRIS2 = Racial Identity subscale: Pre-encounter Miseducation (PM); CRIS3 = Racial Identity subscale: Pre-encounter Self-Hatred (PSH); CRIS4 = Racial Identity subscale: Immersion-Emersion Anti-White (IEAW); CRIS5 = Racial Identity subscale: Internalization Afrocentricity (IA); CRIS6 = Racial Identity subscale: Internalized Multiculturalist Inclusive (IMCI).

Table 3.
T-test and ANOVA Analyses of Demographic Characteristics of Sample

	Overall	*F*			
	n (%)	RSES	STAIS	STAIT	CESD
Gender		0.92	0.49	0.79	4.97*
Male	59(24.3)				
Female	155(74.2)				
Transgender	1(.5)				
Sexual Orientation		1.19	1.074	0.86	1.21
Lesbian	1(.5)				
Gay	5(2.8)				
Bisexual	7(3.3)				
Queer	1(.5)				
Heterosexual	198(92.5)				
Other	1(.5)				
Region of the US		0.53	0.87	0.43	0.86
Midwest	103(48.1)				
Northeast	30(14)				
Southeast	42(19.6)				
Southwest	22(10.3)				
West	17(7.9				
University Type		2.53	0.05	0.15	3.10*
PWI	162(75.7)				
HBCU	47(22)				
Other	5(2.3)				
Academic Field		0.72	0.81	0.80	1.99*
Business	13(6.1)				
Creative Arts	4(1.9)				
Education	33(15.4)				
Health Professions	12(5.6)				
Humanities	51(23.9)				
Law	6(2.8)				
Other	7(3.3)				
Social Sciences	62(29)				
STEM	26(12.1)				
Academic Year		1.13	2.11*	2.89**	2.10*
Freshman	16(7.5)				
Sophomore	21(9.8)				
Junior	15(7.0)				
Senior	53(24.8)				
Post-bachelors	8(3.7)				
Masters	36(16.8)				
Doctoral	58(27.1)				
Professional (Law, Medicine)	3(1.4)				
Other	4(1.9)				

Table 3. (continued)

	Overall	*F*			
	n (%)	RSES	STAIS	STAIT	CESD
Mother's Education		0.80	0.43	0.59	0.48
Less than High School	11(5.1)				
High School or GED	55(25.7)				
Some College/Associates	60(28)				
College Graduate	45(21)				
Some Graduate School	4(1.9)				
Graduate Degree	37(17.3)				
Didn't Know	2(.9)				
Father's Education		0.89	1.01	1.23	0.73
Less than High School	17(7.9)				
High School or GED	75(35)				
Some College/Associates	51(23.8)				
College Graduate	34(15.9)				
Some Graduate School	1(.5)				
Graduate Degree	31(14.5)				
Didn't Know	5(2.3)				
Financial Aid		3.56	1.77	0.52	1.76
Yes	160(74.8)				
No	54(25.2)				
First Generation Status		1.59	1.65	3.09*	1.80
College Level	98(45.8)				
Graduate Level	62(29)				
Doctoral Level	49(22.9)				

Note. * $p < .05$ level (2-tailed); ** $p < .01$ level (2-tailed)

Main Analyses

Hypothesis 1: Testing hardiness as predictor of psychological health outcomes. To test if total hardiness and hardiness subscales predicted psychological health outcomes, a series of hierarchical multiple regression analyses were performed. Two models were tested per outcome variable (i.e., state anxiety, trait anxiety, depression, self-esteem). One model entered the hardiness total score, and another model used hardiness subscales. All three hardiness subscales were entered in the second step all at once. Based on the bivariate correlations with outcomes variables, academic year,

university type, and/or age were entered in the first step as covariate variables. Hardiness was entered in the second step as the primary predictor variable (see Table 4).

University type did not significantly correlate with anxiety; therefore, it was not used as a covariate. Hardiness was a significant predictor of state anxiety above and beyond academic year and age (F (3, 209) = 31.88, $p < .01$), with the full model accounting for 31% of the variance and hardiness adding a significant 25% of variance alone. Hardiness also significantly predicted trait anxiety (F (3, 209) = 65.25, $p < .01$), with the full model accounting for 48% of the variance and hardiness contributing 39% alone. In re-running these analyses using the hardiness subscales, the first step with the models that include year and age was significant and identical to the above models, the commitment (B = -.38) and challenge (B = -.23) subscales were significant predictors of state anxiety ($p < .01$). The control subscale was not significant. For trait anxiety the commitment (B = -.47), challenge (B = -.17), and control (B = -.17) subscales were significant predictors of trait anxiety at the p <.01 levels (see Table 4).

Table 4
A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Hardiness Total Score and Subscale Score
(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.05	.06	4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.15	.10	10.44^{***}(4,208)
Hardiness (H)	-.37	.07	$-.34^{***}$			
Age	.03	.06	.03			
Year	-.52	.26	-.15			
Utype	1.85	.93	$.13^{*}$			
Step 1				.05	.06	4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			

Table 4.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
Step 2				.15	.10	
						10.44***(4,208)
Commitment	-.51	.22	-.19*			
Control	-.25	.18	-.11			
Challenge	-.35	.22	-.12			
Age	.03	.06	.04			
Year	-.50	.26	-.14			
Utype	1.85	.93	.12			
			Anxiety (STATE)			
Step 1				.05	.06	
						6.49**(2,210)
Age	-.23	.10	-.17*			
Year	-.58	.47	-.09			
Step 2				.31	.26	31.88***(2,209)
Hardiness (H)	-.98	.11	-.53***			
Age	-.09	.09	-.07			
Year	-.21	.41	-.04			
Step 1				.05	.06	6.49**(2,210)
Age	-.23	.10	-.17*			
Year	-.58	.47	-.10			
Step 2				.35	.29	21.94***(5,207)
Commitment	-1.70	.34	-.38***			
Control	-.20	.27	-.50			
Challenge	-1.18	.34	-.23**			
Age	-.09	.09	-.07			
Year	-.09	.40	-.02			
			Anxiety (TRAIT)			
Step 1				.08	.09	10.19***(2,210)
Age	-.21	.10	-.18*			
Year	-.91	.43	-.16*			
Step 2				.48	.39	65.45***(3,209)
Hardiness (H)	-1.14	.09	-.66***			
Age	-.05	.07	-.04			
Year	-.48	.33	-.09			
Step 1				.08	.09	10.19***(2,210)
Age	-.03	.07	-.03			
Year	-.35	.33	-.06			
Step 2				.48	.39	65.45***(3,209)
Commitment	-1.96	.27	-.47***			
Challenge	-.83	.27	-.17**			
Control	-.64	.22	-.17**			
Age	-.03	.07	-.03			
Year	-.35	.34	-.06			

Table 4.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Self-Esteem			
Step 1				.02	.03	6.29^{**}(1,212)
Year	.56	.22	$.17^{**}$			
Step 2				.14	.11	17.62^{***}(2,211)
Hardiness (H)	.36	.07	$.35^{***}$			
Year	.30	.22	.09			
Step 1				.02	.03	6.29^{**}(1,212)
Year	.56	.22	$.17^{**}$			
Step 2				.13	.12	9.07^{***}(4,209)
Commitment	.52	.07	$.35^{*}$			
Control	.20	.17	.09			
Challenge	.39	.21	.14			
Year	.27	.21	.21			

* $p < .05$. ** $p < .01$. *** $p < .001$.

Hardiness significantly predicted depression (F (1,209: = 28.12, $p < .01$), with the total model accounting for 15% of the variance and hardiness accounting for a signficant10% of the variance on its own. In re-running this analysis using the hardiness subscales, the commitment subscale was a significant predictor of depression (B = -.19; $p < .05$). The challenge and control subscales were not significant (see Table 4). Hardiness significantly predicted self-esteem as well (F (1, 211) = 17.62, $p < .01$), with the full model accounting for 14% of the variance and hardiness significantly accounting for an additional 11% variance on self-esteem. In re-running this analysis using the hardiness subscales, the commitment subscale was a significant predictor of depression (B = .35; $p < .05$). The challenge and control subscales were not significant.

Moderated Hypotheses

Hypothesis 2: Testing hardiness as a moderator of racial identity subscales and psychological health outcomes. This study investigated the moderating role of hardiness among the sample. Baron and Kenny (1986) suggest that researchers examine

their moderated models one step at a time. Therefore, each moderated models tested in this study will include a 4-part sequence of regression analyses to better understand how much of an effect the moderator has on the predictor-outcome relationship. Aiken and West (1991) indicate that it is best to interpret results using unstandardized beta coefficients rather than standardized beta coefficients because the interaction terms or moderator variables are not properly standardized. However, the predictor and moderator variables were standardized per recommendations by Baron and Kenny (1986) and Frazier et al., (2004). The extent to which the interaction term provides additional predictive information beyond the direct predictor-outcome relationship indicates the strength of the moderating effect. That is, if the interaction term adds significantly ($p <$ .05) to the variance accounted for in the dependent variable, the moderating variable is interpreted as moderating the relationship between the predictor and outcome. Using SPSS micro Process by Preacher and Hayes (2004), this study conducted moderation analyses using total hardiness and racial identity as moderators.

Based on prior research (Whittaker & Neville, 2010), it was hypothesized that internalized racial identity profiles (e.g., multiculturalist) would significantly predict better psychological health outcomes (i.e., depression, anxiety, self-esteem) for Black college students. The subscales used for racial identity include pre-encounter miseducation (PM), pre-encounter self-hatred (PSH), immersion-emersion anti-White (IEAW), internalization afrocentricity (IA), and internalized multiculturalist inclusive (IMCI). Specifically, based on previous literature by Whittaker & Neville (2010), it was predicted that a negative relationship would exist between internalized racial identity profiles and depression and anxiety, while a positive relationship would exist between

internalized racial identity profiles and self-esteem. However, these relationships would be stronger for individuals with higher levels of overall hardiness. It was predicted that the interaction of racial identity subscales and hardiness would significantly account for more variance in Black college students' psychological health outcomes. Based on bivariate correlations, university type, academic year, and/or age were covariates and controlled for these analyses. It was also predicted that the interaction of racial identity subscales and hardiness would significantly account for more variance in Black college students' anxiety, depression, and/or self-esteem. Specifically, it was expected that racial identity profiles would significantly predict psychological health outcomes, with the relationship being stronger in students with higher levels of hardiness than others.

Individual analyses were run for significantly correlated racial identity profiles (i.e., pre-encounter miseducation, pre-encounter self-hatred, immersion-emerison anti-White, internalization afrocentricity, and internalized multiculturalist inclusive) and psychological health outcomes (i.e., depression, self-esteem, anxiety). Based on bivariate correlations, university type, academic year, and/or age were covariates and controlled for these analyses. For space considerations, only significant results are presented. Out of all the subscale combinations for moderated analyses on psychological health outcomes, only one model significantly moderated one outcome variable (see Table 5). All other moderation models were not significant. A significant two-way interaction occurred between the afrocentricity subscale of racial identity and hardiness on depression (see Figure 1). The overall model was significant and accounted for 25% of the variance (F (6, 206) = 11.72, $p < .05$). In separate regressions, the afrocentricity subscale of racial identity significantly and negatively correlated with depression at the *p*

< .01 levels. With the afrocentricity subscale of racial identity and hardiness as predictors, the interaction term (afrocentricity x hardiness) predicted an additional 2% of the variance in depression (ΔR^2 = .02, F (1, 206) = 4.65, p < .05). As shown in Figure 1, those individuals high in afrocentricity and low in hardiness showed higher levels of depression than those individuals low in afrocentricity and high in hardiness. Hardiness was found to be a conditional moderator of the afrocentricity racial identity subscale and depression (p < .05).

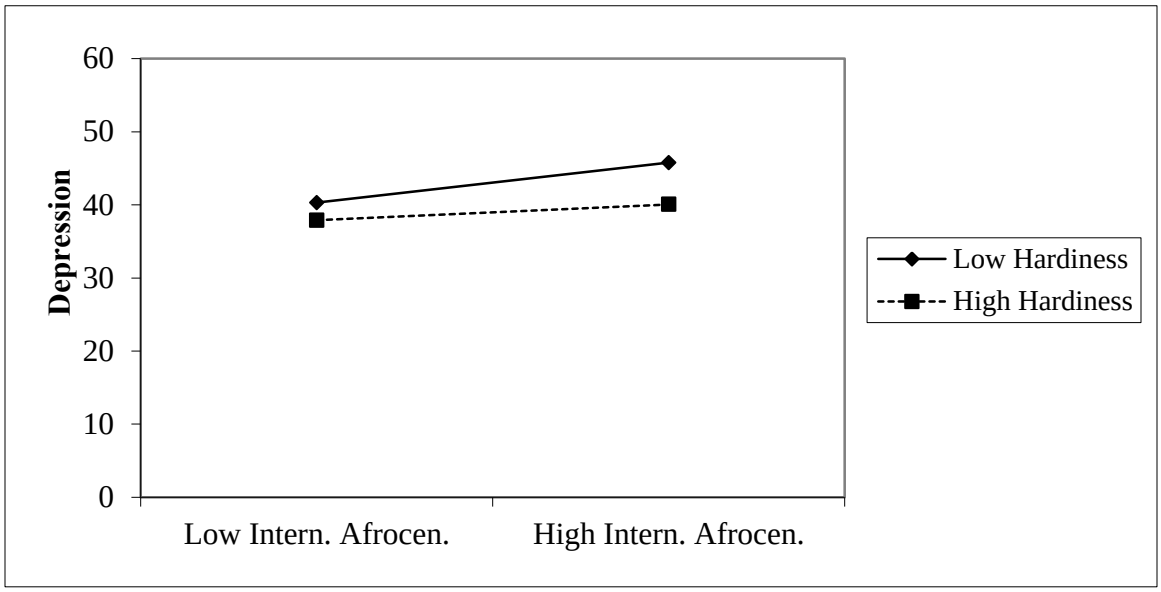

Figure 1. *Plot of Moderation of the Internalization Afrocentricity Subscale of Racial Identity—Depression Relationship by Hardiness.*

Table 5
Significant Moderator effects of Predictor, Moderation, and Outcome Variables (N = *214)*

	t	SE B	*B*	95% CI	R^2
			Depression		
Step 1					
Intern. Afrocen (IA)	4.41	.07	.33	.18, .48	
Hardiness (H)	.01	.1,10	.01	-2.16, 2.17	.25
Step 2					
(IA) x (H)	-.2.16	.07	-.14*	-.27, -.01	.27

Table 5.
(continued)

	t	SE B	*B*	95% CI	R^2
		Depression			
Step 1					
Per. Cognition (PC)	3.35	.06	.19	.08, .31	
Hardiness (H)	.20	1.18	.24	-2.10, 2.57	.22
Step 2					
(PC) x (H)	-2.22	.05	-.12*	.15	.24
		Anxiety TRAIT			
Step 1					
Body Alarm (BAR)	3.32	.13	.44	.18, .69	
Anti-White (IEAW)	3.57	1.43	5.08	2.27, 7.89	.21
Step 2					
(BAR) x (IEAW)	-2.14	.10	-.22*	-.42, -.02	.23

Note. CI = confidence interval. ** $p < .01$. * $p < .05$. IA = Internalized Afrocentricity; PC = Perseverative Cognition; BAR = Anticipatory Body Alarm Response; IEAW = Immersion-emersion Anti-White

Hypothesis 3: Testing hardiness as a moderator between race-related stress and psychological health outcomes. Based on prior research (e.g., Franklin-Jackson & Carson, 2007), it is hypothesized that race-related stress subscales would significantly predict psychological health outcomes (e.g. depression, anxiety, self-esteem) for Black college students. Specifically, it was posited that a negative relationship would exist between race-related stress subscales and self-esteem, while a positive relationship would exist between race-related stress and depression and anxiety. However, these relations would be stronger for individuals with higher levels of overall hardiness. It was predicted that the interaction of race-related stress subscales and hardiness would significantly account for more variance in Black college students' psychological health outcomes.

Individual analyses were run for each race-related stress subscale and psychological health outcome. Based on bivariate correlations, all significant subscales were used for race-related stress including preservative cognition (PA), secondary

appraisal (SA), and activated body alarm response (ABAR). University type, academic year, and/or age were covariates and controlled for in these analyses. For space considerations, only significant moderation results are presented. Out of all the subscale combinations for moderated analyses on psychological health outcomes, only one model significantly moderated one outcome variable (see Table 5). A significant two-way interaction occurred between the perseverative cognition subscale of race-related stress and hardiness on depression (see Figure 2). The overall model was significant and accounted for 22% of the variance (F (6, 206) = 9.13, $p < .05$). With race-related stress perseverative cognition subscale and hardiness as predictors, the interaction term (perseverative cognition x hardiness) predicted an additional 2% of the variance in depression ($\Delta R^2 = .02$, F (1, 206) = 4.95, $p < .05$). As shown in Figure 2, those individuals high in perseverative cognition and high in hardiness showed lower levels of depression than those individuals low in perseverative cognition and low in hardiness. Hardiness was found to be a conditional moderator of race-related stress perseverative cognition subscale and depression ($p = <.05$).

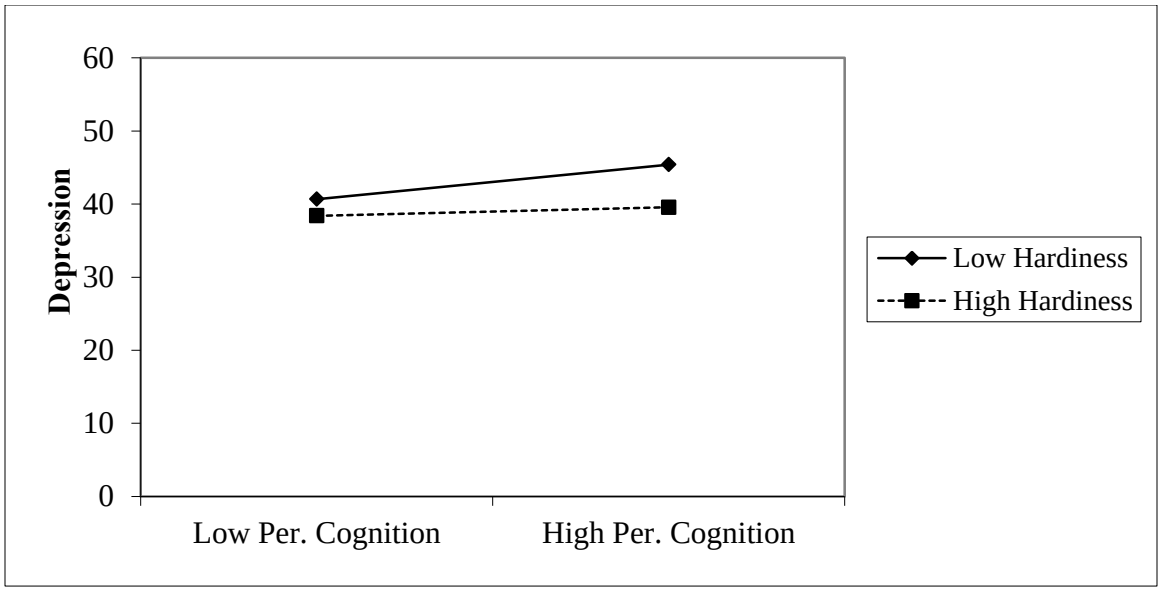

Figure 2. *Plot of Moderation of the Perseverative Cognition Subscale of Race-related Stress—Depression Relationship by Hardiness.*

Replication Studies

Hypothesis 4a: Testing racial identity subscales on psychological health outcomes. To test if racial identity subscales predicted anxiety (state and trait) above and beyond academic year and age, four hierarchical multiple regression were performed. The pre-encounter assimilation subscale did not significantly correlate with any psychological health outcomes; therefore, it was not used in analyses. Racial identity significantly contributed to the model on state anxiety. Specifically, the internalization afrocentricity (F (1, 209) = 7.698, $p < .01$), pre-encounter miseducation (F (1,209) = 5.114, $p < .01$), pre-encounter self-hatred subscale (F (1,209) = 8.501, $p < .01$) and immersion-emersion anti-White subscale (F (1,209) = 7.075, $p < .01$), all significantly accounted for variance on state anxiety. For trait anxiety, five out of the six racial identity subscales were tested (see Table 6), based on results from bivariate correlations. Internalization multiculturalist inclusive (F (1, 209) = 9.204, $p < .01$), internalization afrocentricity ($R^2 = .136$; F (1,209) = 10.935, $p < .01$), immersion-emersion anti-White

subscale (R^2 = .155; F (1,209) = 12.816, p < .01), pre-encounter self-hatred (R^2 = .162; F (1,209) = 13.498, p < .01), and pre-encounter miseducation (R^2 = .096; F (1,209) = 7.360, p < .01), all significantly contributed to individual models of trait anxiety.

To test if racial identity subscales predicted depression above and beyond university type, academic year, and age, four hierarchical multiple regressions were performed with each of the significant racial identity subscales, based on bivariate correlation results. Racial identity significantly contributed to the models. Specifically, pre-encounter miseducation (R^2 = .091; F (1, 208) = 5.222, p < .01), the pre-encounter self-hatred subscale (R^2 = .113; F (1,208) = 6.622, p < .01), immersion-emersion anti-White subscale (R^2 = .177; F (1,208) = 11.184, p < .01), internalization afrocentricity subscale (R^2 = .155; F (1,208) = 9.555, p < .01). Racial identity subscales predicted self-esteem above and beyond academic year. The pre-encounter self-hatred (R^2 = .068; F (1, 211) = 7.736, p < .01) and pre-encounter miseducation (R^2 = .075; F (1, 211) = 8.610, p < .01), significantly contributed to the model on self-esteem (see Table 6).

Table 6
A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Racial Identity Subscale Scores
(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.08	.09	4.72^{***}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.14	.09	9.56^{***}(4,208)
Miseducation	.19	.07	$.18^{**}$			
Self-Hatred	.25	.07	$.22^{**}$			
Anti-White	.48	.09	$.34^{***}$			
Intern. Afrocen	.37	.08	$.30^{***}$			
Age	.03	.06	.03			
Year	-.52	.26	$-.15^{*}$			
Utype	1.85	.93	.13			

Table 6.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Anxiety (STATE)			
Step 1				.05	.06	4.72**(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	-.19*			
Step 2				.15	.10	10.44***(4,208)
Miseducation	.19	.13	.11			
Self-hatred	.43	.13	.27**			
Anti-White	.45	.16	.19**			
Intern. Afrocen	.43	.14	.20**			
Age	.03	.06	.04*			
Year	-.50	.26	-.14			
			Anxiety (TRAIT)			
Step 1				.08	.09	10.19***(2,210)
Age	-.21	.10	-.18			
Year	-.91	.43	-.16			
Step 2				.10	.01	12.816**(3,209)
Miseducation	.15	.12	.09			
Self-hatred	.48	.11	.27***			
Anti-White	.59	.15	.26***			
Intern. Afrocen	.43	.13	.22**			
Intern. Multi	-.32	.13	-.17*			
Age	-.24	.10	-.19*			
Year	-.74	.43	-.13			
			Self-Esteem			
Step 1				.02	.03	6.23**(1,212)
Year	.56	.22	.17			
Step 2				.06	.04	7.74**(2,211)
Self-hatred	-.211	.07	-.20			
Miseducation	-.23	.07	-.24			

* $p < .05$. ** $p < .01$. *** $p < .001$. Miseducation = pre-encounter miseducation; Self-hatred = pre-encounter self-hatred; Anti-White = Immersion=emersion Anti-White; Intern. Afrocentricity = Internalization Afrocentricity; Intern. Multi = Internalization Multiculturalist.

Table 7
A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Race-Related Stress Subscale Scores
(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.05	.06	4.72**(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	-.19*			
UType	1.61	.98	.11			
Step 2				.10	.06	7.13***(4,208)
Per. Cognition	.23	.06	-.34***			
Body Alarm	.31	.08	.25			
Age	-.06	.06	.24			
Year	-.64	.27	-.19*			

Table 7.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
Utype	1.95	.95	.14*			
			Anxiety (STATE)			
Step 1				.05	.06	6.49**(2,210)
Age	-.23	.10	-.17*			
Year	-.58	.47	-.10*			
Step 2				.08	.04	10.44***(4,208)
Secon. Appraisal	-.51	.22	-.19*			
Body Alarm	.60	.14	.28***			
Per. Cognition	.32	.11	.20*			
Age	-.28	.10	-.21*			
Year	-.57	.46	-.10*			
			Anxiety (TRAIT)			
Step 1				.08	.09	10.19***(2,210)
Age	-.21	.10	-.18*			
Year	-.91	.43	-.16*			
Step 2				.10	.01	7.826***(3,209)
Secon. Appraisal	-.20	.12	-.11			
Per. Cognition	.32	.10	.22**			
Body Alarm	.49	.13	.24***			
			Self-Esteem			
Step 1				.02	.03	6.29**(1,212)
Year	.56	.22	.17			
Step 2				.03	.005	3.73*(2,211)
Year	.53	.23	.16*			
Body Alarm	.09	.08	.07			

* $p < .05$. ** $p < .01$. *** $p < .001$. Per. Cognition = Perseverative Cognition; Body Alarm = Anticipatory Body Alarm Response; Secon. Appraisal = Secondary Appraisal.

Hypothesis 4b: Testing race-related stress subscales on psychological health outcomes. To test if race-related stress subscales predicted anxiety (state and trait) above and beyond academic year and age, three hierarchical multiple regressions were performed, based on bivariate correlations. The anticipatory race-related stress scale did not significantly correlate with any of the psychological health outcomes, therefore it was not used in analyses. Race-related stress subscales were significant predictors above and beyond covariates, specifically perseverative cognition (F (3, 209) = 7.505, $p < .01$), secondary appraisal (F (3, 209) = 7.83, $p < .01$), and anticipatory body alarm response (R^2 = .134; F (3,209) = 10.777 $p < .01$), all significantly accounted for variance on state

anxiety (see Table 7). For trait anxiety, three out of the four subscales were tested. Secondary appraisal, accounted for 10% of the variance on trait anxiety (F (3, 209) = 7.826, $p < .01$). The perseverative cognition subscale ($R^2 = .134$; F (3,209) = 10.780 $p < .01$), anticipatory body alarm response (F (3,209) = 11.951 $p < .01$), all significantly contributed to individual models of trait anxiety.

To test if race-related stress predicted depression above and beyond university type, academic year, and age, two hierarchical multiple regressions were performed, based on bivariate correlation results. In the second step, perseverative cognition, accounted for 12% of the variance (F (4, 208) = 7.128, $p < .01$), anticipatory body alarm response subscale (F (4, 208) = 7.313, $p < .01$), all significantly contributed to individual models of depression. Race-related stress subscales predicted self-esteem above and beyond academic year. In the second step, anticipatory body alarm response was a significant predictor in the model on self-esteem (F (2, 211) = 3.73, $p < .05$) and accounted for an additional 5% of the variance (see Table 7).

Hypothesis 4c: Testing racial identity profiles as moderators between race-related stress and psychological health outcomes. Based on prior research (Franklin-Jackson & Carson, 2007), it is hypothesized that race-related stress subscales would significantly predict psychological health outcomes (e.g. depression, anxiety, self-esteem) for Black college students. Specifically, a negative relationship would exist between race-related stress and self-esteem, while a positive relationship would exist between race-related stress and depression and anxiety. However, these relations would be stronger for individuals with internalized racial identity profiles of afrocentricity and

multiculturalist in comparison to other racial identity profiles individuals may be less impacted by racial stressors and accepting of their social location.

Individual analyses were run for each race-related stress subscale and psychological health outcome. Z scores for all subscales previously created were used in this analysis. Based on bivariate correlations, university type, academic year, and/or age were covariates and controlled for these analyses. Out of all the subscale combinations for moderated analyses on psychological health outcomes, only one model significantly moderated one outcome variable. All other moderation models were not significant. A significant two-way interaction occurred between the body alarm response subscale of race-related stress and the anti-White subscale of racial identity on trait anxiety (see Figure 3). The overall model was significant and accounted for 21% of the variance (F (5, 207) = 10.83, $p < .05$). In separate regressions, both the body alarm response and anti-White subscales significantly and positively correlated with trait anxiety at the $p <$ .01 levels. With race-related stress and racial identity subscales as predictors, the interaction term (body alarm response for race-related stress x anti-White for racial identity) predicted an additional 2% of the variance in trait anxiety ($\Delta R^2 = .02$, F (1, 207) = 4.59, $p < .05$). As shown in Figure 3, those individuals high in anti-White attitudes and high in anticipatory body alarm response showed higher levels of trait anxiety than those individuals with low anti-White attitudes and low body alarm response. Racial identity anti-White subscale was found to be a conditional moderator of race-related stress body alarm response subscale and trait anxiety ($p = <.05$).

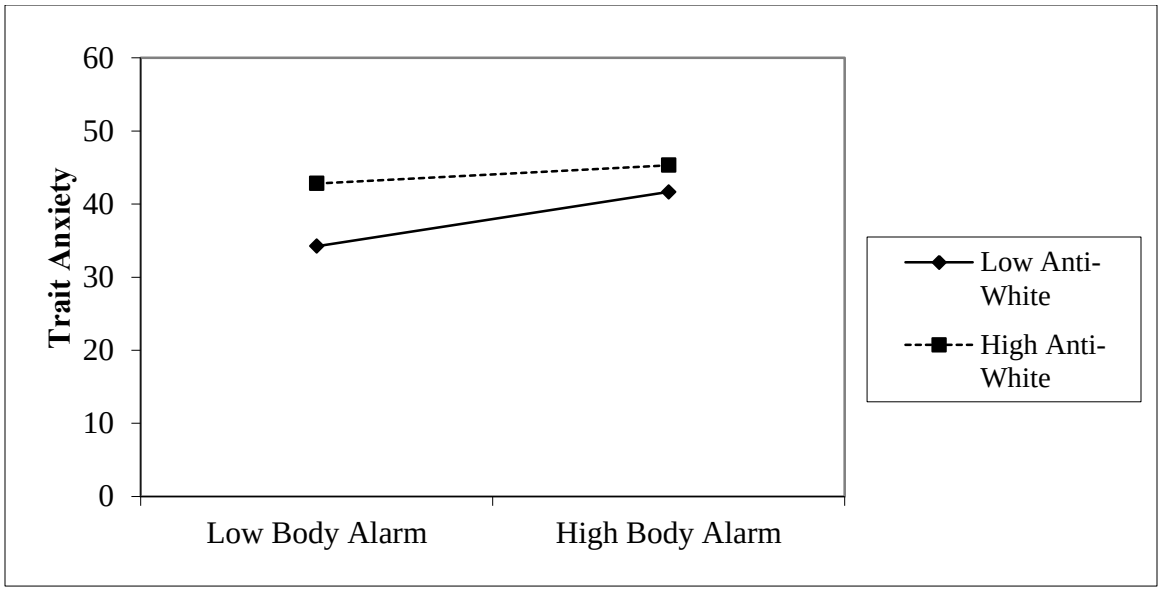

Figure 3. *Plot of Moderation of the Anticipatory Body Alarm Response Subscale of Race-Related Stress—Trait Anxiety Relationship by Immersion-Emersion Anti-White Subscale of Racial Identity.*

CHAPTER 4

DISCUSSION

The purpose of this study was to address gaps in the literature by investigating the relationships between hardiness, racial identity, and race-related stress on psychological health outcomes (i.e., depression, anxiety (state-trait), self-esteem) among Black college students. Specifically and through the lens of resilience theory, this study aimed to better understand how hardiness, a buffer to stress, might also buffer psychological health outcomes as a result of race-related stress and/or racial identity. Resilience theory (Holling, Gunderson, & Ludwig, 2002) aims to understand the source and role transformational change plays in adaptive systems, in this case, hardiness transforming stressors to buffer against psychological health outcomes. This study allowed for examination of potential protective factors that impact Black college students' experiences of race-related stress. In an ever-changing world, stressful life events occur daily among individuals, but it seems that perception and coping abilities significantly impact how those stress-related events affect individuals. Hardiness has been that link. Previous literature illustrates that hardiness buffers against stress-related illness, and individuals with this personality trait have been able to reap the benefit in their everyday lives.

Based on the findings from the present study, hardiness related to higher levels of self-esteem and lower levels of anxiety and depression among Black college students. As a result, an individual who is hardy is less worried about stressful life events and may experience minimal impacts. Hardy individuals may feel higher levels of self-esteem because they may experience stressors without allowing stressors to impact how they feel

about themselves. Hardiness did not significantly relate to race-related stress for Black college students.

Race-related stress has been associated time again with negative health disparities among people of color (Harrell, 2000; Utsey & Ponterotto, 1996). Particularly in the Black community, race-related stress has continued to persist on a daily basis in addition to the already existing stressful life events (Utsey & Ponterotto, 1996; Utsey et al., 2002). Consistent with Maddi and other scholars (Maddi et al., 2006), the total score of hardiness had inverse relationships with both anxiety state and trait in the present study. In fact, the total score of hardiness explained a large portion of variance on anxiety, which means that participants showed a significant amount of hardiness. Hardiness also had an inverse relationship with depression and significantly explained a large portion of the variance on depression. These findings essentially validated previous research. Hardiness overall, also had a positive relationship with self-esteem. This finding may suggest that, among Black college students, self-esteem may increase as one increases their hardiness, which may be very helpful in student achievement. More awareness of one's own hardiness is warranted so that more students may better understand how they may buffer stress-related events.

Consistent with previous literature, the commitment subscale of hardiness was related to all of the psychological health outcomes (Harris, 2004; Pengilly & Dowd, 2000; Sheard, 2009). Commitment may likely be most closely reflective of hardiness. A person's commitment to what is happening around them despite tough times is similar to a person's willingness to pursue stressful challenges and make it work for them, which is one component of hardiness. In re-describing the other subscales, control is the person's

influence on outcomes despite being good or bad. Challenge is the person accepting that the inevitable stress and changes in life are opportunities to grow and learn (Kobasa, 1979; Maddi & Harvey, 2006). Therefore, it is plausible that the commitment subscale would be the most consistent subscale that relates and predicts to psychological health outcomes. The challenge and control subscales may not be related to Black college students 1) because the control subscale had very low reliability (r = .47) and 2) because the commitment subscale has been most consistent in significantly relating to psychological outcomes in past research and in the present study. All three subscales of hardiness were significant predictors of trait anxiety, and commitment and challenge subscales were significant predictors of state anxiety. For both depression and self-esteem, the commitment subscale was the only subscale that was significant, not challenge or control. This may mean that the hardiness subscale of commitment measures hardiness better than the other subscales. This could also mean that the other subscales of hardiness do not accurately measure hardiness in this sample. This could also be a result of not having a normal distribution among the data. It seems findings may go against the literature regarding one's sense of control. Gasman (2008) and Lewis et al. (2004) discuss how gaining a sense of control through successful navigation of the University system contributes to one's coping strategy for stressful events. With regard to the challenge subscale of hardiness not being significant, perhaps one's commitment to transforming stressful life events speaks more to their experience than challenge because race-related stressful events are not challenges this population desires to face on a daily basis.

A unique feature of this study was the investigation of hardiness as a moderator between race-related stress and psychological health, and racial identity and psychological health. Interestingly, only one significant interaction arose; the internalization afrocentricity subscale of racial identity x hardiness on depression. Consistent with previous literature, internalized afrocentricity is one of the subscales that most strongly related to psychological health outcomes (Franklin-Jackson & Carter, 2007; Whittaker & Neville, 2010). Those who were high on afrocentricity and low on hardiness reported higher levels of depression than those who were low on afrocentricity and high on hardiness. This may mean that it may not be enough to have the afrocentricity attitude alone to buffer psychological distress, but that one' own hardiness may also contribute. However, previous research has shown that aspects of this subscale may not measure ones internalized afrocentricity very well. Cokley (2005) discussed some limitations of using the internalized afrocentricity subscale stating that the subscale items may "either be consistent or inconsistent with the Afrocentric worldview" (p. 524). In addition, the measure may prime participants to have more of a reactive/oppositional stance (Cokley, 2005), which may be more burdening than empowering. In turn, the subscale may increase psychological distress depending on how you may perceive the scale items. In the literature, internalized afrocentricity is a positive profile that includes individuals who are pro-Black and want to empower the Black community (Cokley, 2002; 2005). In the context of being pro-Black and empowering others, it may require motivation and added energy. One who is pro-Black may welcome adversity in demonstrating just how hardy they are in this society by pursuing goals despite the adversity. Thus, it is plausible that the more pro-Black you are, the hardier you are and

the less depressed you may be overall, but the findings of this study suggest otherwise. Specifically, the more Afrocentric you are may reflect being strong in commitment, challenge, and control with regard to race-related stressful life events. Depending on where one may be with their racial identity, this may serve as a buffer or a product of one's resiliency in response to racism.

However, the other psychological health outcomes (i.e., anxiety and self-esteem) were not significant, contrary to findings from previous literature. It is interesting that hardiness did not buffer anxiety and self-esteem with this sample in the context of any other subscale of racial identity, but specifically afrocentricity. Anxiety and self-esteem may not have significance due to the measure of hardiness not accurately measuring these aspects and/or the use of the updated version for measuring race-related stress. Differences in anxiety measures may contribute to the present study's conflicting findings. For example, the present study used both Spielberger's (1983) state and trait anxiety measures, regardless of the common trend of state anxiety being low in reliability in research (Mobley, Slaney, & Rice, 2005). Trait level appears to be more chronic than state-level, and it is possible that hardiness is more relatable to state-level anxiety. The mean level of depression was consistent with previous literature (Maddi, Brow, Khoshaba, Vaitkus, 2006). Similarly, the levels of hardiness were higher than reported in previous research (Harris, 2004) which may indicate that the sample used in the present study may represent individuals who are hardier and thus may not experience anxiety or other negative psychological outcomes at as high of a rate as others.

Similarly, only one significant interaction was found between hardiness and race-related stress, the interaction of the perseverative cognition subscale of race-related

stress x hardiness on depression. To date, there is a lack of literature supporting the new race-related stress subscales (Utsey et al., 2012) including perseverative cognition as most strongly related to psychological health outcomes. In the present study, those individuals high in perseverative cognition and high in hardiness showed lower levels of depression than those individuals high in perseverative cognition and low in hardiness. In the literature, perseverative cognition measures the frequency, intensity, and controllability to which an individual cognitively perseverates, or ruminates, about a specific race-related encounter (Utsey et al., 2012). This may mean that those who ruminate over a single racial event may be impacted less if they have higher levels of hardiness than those that have lower levels. It also seems that cognition may overlap with depressive symptoms (having a positive interaction), and therefore, the hardier the person, the weaker the relationship. Being hardy (willingness to pursue challenges) seems to go against ruminating/perseverating and being depressed. Once again, the other psychological health outcomes (i.e., anxiety, self-esteem) were not significant which was unforeseen. The anticipatory race-related stress subscale of race-related stress was the subscale of interest, but it did not significantly relate to any of the psychological health outcomes. As it already was not related to any of the hardiness subscales, it would not have been statistically sound to test in this study. This could mean that the hardiness measure does not accurately account for the added layer of race-related stress, particularly with a Black sample. In essence, maybe the way hardiness is measured is too simplistic for complex situations of stress. Future research should explore why this is the case and hardiness researchers should reassess the measures validity with all types of stressors including race-related stress.

This study also replicated previous research findings related to racial identity, race-related stress, and psychological health outcomes. For state and trait anxiety, it was not expected that the pre-encounter self-hatred subscale, an earlier stage of racial identity, would account for the most variance given that previous research has consistently shown the internalized subscales (i.e., multiculturalist and afrocentricity), or later stages of racial identity, having stronger significance on psychological health outcomes (Franklin-Jackson & Carter, 2007). The non-replication of findings could be a product of using the most recent version of the race-related stress scale. It is plausible that using the older version of the race-related stress measure may have warranted results more consistent with the previous literature. While previous literature has found the internalization stages of racial identity, including afrocentricity and multiculturalist stages, being significantly and negatively correlated with depression; and be correlated significantly with other psychological health outcomes (i.e., self-esteem), the present study did not. It appears that attempts to replicate previous studies were not successful for a couple reasons. The sample size was not as large as the previous studies, but only slightly. Inconsistent with previous research, however, the Whittaker & Neville (2010) did use cluster analysis to create their profiles and may be why replication was not successful in this study. Further, participants were forced to choose a response, which may have also contributed to different results.

After finding significance in the covariates on psychological health outcomes, some subscales of race-related stress contributed to the overall significance. For state and trait anxiety, the anticipatory body alarm response subscale explained the most variance. This is conceivable given that this subscale measured physiological symptoms as a result

of experiencing race-related stress and this being anxiety provoking in the moment. This subscale is also congruent with the notion that it measures the physiological symptoms of anxiety and these could be more consistent over time in participants. For state anxiety, the perseverative cognition subscale was less significant, but also reasonable as it measures cognitive rumination of a particular racial experience. Both these subscales are consistent symptoms of anxiety. Secondary appraisal, the least significant subscale of race-related stress, measures someone's acceptance of racism being a part of their life given the historic and societal contexts of living in the US. Therefore, it is understood that the more someone is accepting of racial events occurring, the less worried they may become about future racial events occurring. With regard to depression as a psychological outcome, the perseverative cognition and anticipatory body alarm response subscales of race-related stress were equally significant predictors of depression. This finding is validated by the knowledge that anxiety symptoms co-occur with depression in many cases. With regard to self-esteem, interestingly, the anticipatory body alarm response subscale was the only subscale significantly predicting self-esteem. This may mean that anxiety does not necessarily equate to low self-esteem in all cases, but further research is warranted.

Similar to extant literature on racial identity moderating race-related stress predictors of psychological health outcomes (Franklin-Jackson & Carter, 2007), in this study, those individuals high in anti-White attitudes and high in anticipatory body alarm response showed higher levels of trait anxiety than those individuals with low anti-White attitudes and low body alarm response. This seems plausible because individuals who are anti-White may be more sensitive to experiencing race-related stress and producing

anxiety because of that stress. In other words, the interaction of these two subscales could mean that participants who are against the White culture may have more anticipatory anxiety of a racial experience; therefore, they may be more reactive physiologically before and after the experience happens. Some researchers have found that having "racism-related vigilance" – or being mentally prepared to experience racism on a daily basis – increases sleep difficulty in racial/ethnic populations, particularly Blacks (Hicken, Lee, Ailshire, Bugard, & Williams, 2013, p. 2). It seems that this specifically relates to the anticipation of racism and creating anxiety. Having sleep difficulties is another symptom of anxiety and future research may want to explore these connections in Black college students.

Implications for Research and Practice

Research. Efforts to continue building upon the theory aspect of Hardiness may require continued utility and validity testing of hardiness with a wider range of culturally different populations. There was a lower alpha coefficient with the control subscale, which may speak to the measurement issues the scale possesses (Benishek & Lopez, 1997). This study may serve as a continued step toward testing the validity and utility of the construct with Black college students. Given that previous hardiness research does not provide exploratory or confirmatory factor analysis studies of different racial/ethnic minority groups, researchers are to assume that the work Maddi and his colleagues have been conducting is valid across cultures. However, because of copy write laws of the Personal Views Survey III-R, outside researchers are unable to obtain the scoring manual of the total scale nor subscale (commitment, challenge, and control) in order to conduct appropriate analyses for exploratory or confirmatory factor analysis. Future focus should

remain on testing the validity of Hardiness with a larger sample of Black students as well as the larger Black community population. Moreover, testing the casual order of the relationships is a necessary step that can be done through longitudinal studies or through competing models based on the present findings. Further, more qualitative research is warranted to better understand those individuals with higher levels of hardiness compared to others.

Another future direction may examine how hardiness, racial identity, and race-related stress combined relate to psychological health outcomes in Black students. In this study, there was no models connecting hardiness, racial identity, and race-related stress on psychological health outcomes. There were only separate moderation models for each of the above variables on two psychological health outcomes (i.e. depression and anxiety). Using Hayes (2013) moderation models, future research could test if both hardiness subscales and racial identity subscales moderate race-related stress on psychological health outcomes. Another example would be to test if both race-related stress subscales and racial identity subscales moderate hardiness on psychological health outcomes. The present study's analyses used the total hardiness score, but it may be of interest if future research examined at the subscales of hardiness and if the subscales of race-related stress or racial identity could also moderate them.

Among the different combinations of the race-related stress, racial identity, and hardiness subscales, it seemed surprising that only a hand full of models were significant. However, there were several other models that were very close to being significant. Perhaps employing stronger power in this study would have increased the likelihood of producing more significant moderated models of the above variables. Future research

should further explore the combination of these subscales with a larger Black population and with increased power. In addition, in testing race-related stress in the future, more research is warranted that utilizes the updated scale, the Prolonged Activation and Anticipatory Race-related Stress Scale. It should be noted that this study was unable to find correlations between any of these subscales and the hardiness subscales. However, for hypothesis and exploratory purposes, this study proceeded with testing these two variables. The previous race-related stress scale, given its years of use and refinement, may have served as a better scale for working with hardiness. However, this study showed no relation between hardiness and race-related stress, which may negatively speak to the generalization of hardiness as a buffer to stress-related illness. More research should continue to fill this gap in the literature. It seems that hardiness, a buffer to stress-related illnesses, fails to consider the added layer of race-related stress, a daily experience of racial/ethnic minorities, particularly in the Black community. Though racial identity has been tested with the hardiness subscales, more research should be done that also considers that added layer of race-related stress. Perhaps there may be a need for a culturally sensitive hardiness scale in the future.

Within the Black student sample, it would be interesting if future research looked at group differences and these serving as moderators for the hardiness, race-related stress, and racial identity relationships on psychological health outcomes. For example, if there is a relationship between hardiness and race-related stress among Black college students, it is hypothesized that hardiness will be negatively related to race-related stress for both men and women, but that this will be stronger for women. Previous research that has measured hardiness, race-related stress, and racial identity has supported gender

differences (Harris, 2004; Jones, Cross, & DeFour, 2007; Maddi et al, 2006). Or, if there is a relationship between hardiness and race-related stress among Black college students, it is hypothesized that hardiness will negatively be related to race-related stress for participants attending PWIs and HBCUs, but that this will be stronger for students attending PWIs. Greer and Brown (2011) and other researchers have found that not only do Black students cope differently with general life stressors because of their social status, but that there are differences between Black students coping at PWIs compared to Black students coping at HBCUs. Another direction for future research would be to test if there is a relationship between hardiness and race-related stress among Black college students, as is may be hypothesized that hardiness will negatively be related to race-related stress for participants in undergraduate programs and graduate programs, but that hardiness may be stronger for undergraduates. Though there has been research that supports each group, less research compares undergraduates and graduates together, particularly testing Black college students, hardiness, race-related stress, and/or racial identity; therefore, more research is warranted.

Practice. Results gained from testing hardiness, race-related stress, and racial identity included in the present study also provide valuable information for a variety of professionals in contact with Black students. Implications of the present study range from developing and implementing interventions that attempt to better understand the experiences of Black college students. Findings suggest a potential need to understand one's racial identity, previous and current race-related stress, and level of hardiness in order to ensure minimal negative impact on their psychological health. One approach to addressing the needs of Black students is to develop and implement programs or

interventions while considering societal forces, namely race-related stress. Furthermore, understanding their experiences within their cultural context will likely allow administrators, counselors, and advisors to best address needs or concerns. University administrators should be creating campuses that better reflect society. As mentioned earlier, hardiness may need to be broken into culturally-specific scales given there may be differences in processing emotions and stress related to race among members in the Black community.

Psychology professionals who work with Black students should consider and assess hardiness among Black college students and how race-related stress, racial identity, and other personal inputs have influenced their educational socialization. Also, connecting the components of hardiness pertinent to their academic goals and performance may be useful in providing insight and future directions for goal setting to improve growth areas and identify and reinforce other strengths for Black students. Some ways to assist students with racial identity or race-related stress concerns may be to focus on how they have been able to transform stressors related to race and remain committed on a daily basis.

Strengths

In addition to having high power and adequate sample size, this study had a number of other strengths that contributes to the field. To begin, this study tested race-related stress and hardiness together for the first time. It seems plausible that hardiness should be tested with race-related stress given that hardiness has been known to buffer stress-related illness. Race-related stress has been known to cause mental and physical illness in Black populations because of the pervasiveness of this unique type of stress. It

was thought, what if hardiness, a buffer to stress, could buffer the mental and physical illness resulting from race-related stress in the Black population. However, in continuing off the population, within the realm of hardiness literature, this study was able to add by having solely Black students as part of the study. As explained in both the introduction and literature review, the hardiness literature seems to lack in its studies that include a vast amount of racial/ethnic populations. There have been some diverse studies that have included hardiness as a variable, but this study made hardiness the primary variable of interest along with race-related stress. Further, this study used the most recent race-related stress measure by Utsey et al, (2012) and provides specific information on how the newer subscales relate to psychological health outcomes as well as hardiness and racial identity. In looking more closely at the data analysis procedures, it seems that being able to confirm previous literature is indicative of good data and data analysis procedures. For example, the commitment subscale of hardiness was significant and consistently related to psychological health outcomes.

In looking more closely at the sample size used in the study, 214 Black college students, this study was able to have significant characteristic diversity among its participants. Notably, this study had an equal number of undergraduate and graduate student participants, which may be interesting to closely examine in future research. Though not equal, there was representation from men, women, and one transgender student. In addition, though not equal in size, there was representation from both predominately White institutions and historically Black colleges/universities among participants. Further, there were significant differences with the academic field and first generation status of the participants. Majority of participants were Social Sciences,

Humanities, Education, or STEM fields and with other major lacking representation. Focusing on academic generation status is another area of further exploration and analysis. Overall, focusing on specific demographic characteristics among Black students may result in worthwhile study outcomes with regard to hardiness, race-related stress, and racial identity on psychological health outcomes.

Conclusion

This study examined the relationships between hardiness, race-related stress, and racial identity on psychological health outcomes among Black college students. With the lack of literature on hardiness and Black students as well as a lack of literature on hardiness and race-related stress, this study helped to fill these gaps in the literature. From the results, this study brought to light the importance of assessing hardiness among a Black college sample, but also provided more information regarding hardiness and whether it can be generalized to buffer all types of stress. With race-related stress not being significantly related to hardiness, this poses an issue with understanding hardiness within racial-ethnic populations, particularly Black individuals. Though there were some inconsistent findings from this study compared to previous literature, this study did provide more information regarding the impact of hardiness and racial identity as moderators on psychological health outcomes and via race-related stress. The inconsistencies also help to critically reflect on what may be going on with this specific population in the context of their institutions and/or changes in society. Continued research in the areas of race-related stress, hardiness, and psychological outcomes of Black students may assist clinicians and academic administrators in understanding Black

students. This may, in turn, provide them with the knowledge needed to better assist these students in understanding their strengths within educational institutions.

APPENDICES

APPRENDIX A

Extended Literature Review

This study explored the relationship between hardiness, racial identity, and race-related stress on psychological health outcomes among Black college students. In this chapter, I further review literature on race-related stress and racial identity (Cross, 1971) related to psychological health outcomes. Next, I review the concept and literature on hardiness, the measurement of hardiness, and what populations the measure has been used with. I then discuss the national trends on Blacks in higher education and their positive and negative experiences and stressors while attending predominately White institutions. I also discuss what external and internal protective factors used by Black college students, such as hardiness, that may contribute to those students who successfully graduate from their programs as most literature discusses barriers to graduation. To ground this work, I will employ both hardiness theory (Kobasa, 1979; Maddi, 1999) and race-related stress (Utsey & Ponterotto, 1996). From there, I discuss the importance of examining and understanding hardiness and how it may related racial identities given the contexts and challenges, emphasizing Black college students and race-related stress. Finally, I provide the rationale for this study.

Definitions

Predominately White Institutions (PWI). No formal definition exists of PWI, but it most often constitutes a learning environment of higher education where the historical racial make-up of the population was only (or majority) White, and where the campus climate and environment mirrors the racial interaction of the society at large as

rooted in dominant, mainstream White cultural values and practices (Cabrera, Nora, Terenzini, Pascarell, & Hagedom, 1999; Gloria, Castellanos, & Orozco, 2005; Gusa, 2010; Sue, 2004).

Black. For this paper, the term "Black" will be used in consideration of the literature. Black refers to those who identify as African American as well as those of African and Caribbean descent, such as West Indian. However, the focus of this paper will be on Black students who have had all of their education in the United States. Thus, this particular study focuses solely on Black college students' academic hardiness experiences at predominately White institutions. Collins (2000) suggested that most Black individuals, whether they identify as African American or not, have something in common in that "their struggle to be accepted and respected members of society, and their desire to have a voice that can be heard in the world with many views." Though this quote mainly referred to Black women, it can be applied to Black males as well to encompass the entire Black community.

Protective Factors. It is also important to define "protective factors" for the purpose of this study. In an article by Short, Suzuki, Prendes-Lintel, Prendes-Lintel Furr, Madabhushi, and Mapel (2009), the authors thoroughly explained what protective factors in the context of immigrants and refugees. However, their explanation is easily applicable to Black college students attending predominately White Institutions. The authors wrote:

> "Protective factors are often linked with resiliency and can be defined as coping strategies and abilities that help individuals manage and adapt to ongoing traumatic and/or stressful situations and environments. Protective factors that are

> internal, such as self-esteem and self-efficacy; cultural, religious, and spiritual belief systems; and psychological preparedness, can all potentially enhance an individual's capacity to cope with stress and help him or her to develop a sense of coherence and perceived control. Social support systems—such as family; friends; community; and religious, service-oriented, and educational organizations—can be characterized as external protective factors that can provide support and valuable connections to individuals who may also be experiencing challenges. In fact, some experiences may serve to enhance the quality of individuals' lives and emotional health statuses" (Berry, 1988; Short et al, 2009, pg. 205).

This definition helps to understand how protective factors may psychologically prepare individuals to cope with stressful experiences. Hardiness is an internal protective factor where individuals are willing to pursue stressful events/experiences.

Resilience Theory

Resilience theory (Holling, Gunderson, & Ludwig, 2002) serves to be the framework on this study. This theory aims to understand the source and role transformational change plays in adaptive systems. In this theory, dynamic cycles are linked together and across spatial and temporal scales with the core of resilience theory being the adaptive cycles. An individual's adaptive style is nested within a higher realm of time and space that houses the memories of the past and of the distant and aid in recovery after change occurs. However, if the dynamics across scales become too connected or overworked, they may induce a destabilizing effect, and may contribute to

small-scale transformations to turn into large-scale crises. This is known as *panarchy* (Gunderson & Holling, 2002; Redman & Kinzig, 2003).

According to Gunderson and Holling (2002), there are four assumptions of resilience theory. First, the concept of change is episodic with episodes of slow accumulation of natural experiences interrupted by abrupt releases and reorganizations caused by interactions between variables fast and slow. Second, spatial and temporal scales are patterns and processes that are patchy and discontinuous, and cannot scale up from small to large. Third, ecosystems are not controlled by one core system, but rather multiple systems that define the function of different states. For example, it is important to have destabilizing forces because they maintain diversity, flexibility, and opportunity. Stabilizing forces are important to maintain productivity, fixed capital, and social memory. Fourth, management of the critical ecosystems must be flexible because these critical scales change over time because of changing contexts. The goal of resilience theory is for individuals and systems to develop ways to learn from previous experiences and accept that unknown experiences are inevitably faced (Redman & Kinzig, 2003).

Race Related Stress and Psychological Health

Racial adversity and stress continues to remain an issue in the United States and plays an important, yet negative role, in the mental and physical health disparities among members in the Black community (Harrell, 2000; Harris, Edlund, & Larson, 2005; Franklin-Jackson & Carter, 2007). Race-related stress is the daily experiences of racism and discrimination and members of the Black community in particular experience race-related stress uniquely from other racial/ethnic populations (Utsey & Ponterotto, 1996). Race-related stress (Utsey & Ponterotto, 1996; 1999) is the concept used to guide this

study because it focuses on how Blacks in society uniquely experience daily hassles (Lazarus & Folkman, 1984) and everyday racism (Essed, 1990). Harrell (2000) found that Blacks experience stress across interpersonal, collective, cultural-symbolic, and sociopolitical contexts. Other researchers (Utsey & Ponterotto, 1996) identified four subscales of racism that consider various levels: cultural racism, institutional racism, individual racism, and collective racism. This study used the most updated race-related stress scale by Utsey et al. (2012), the Prolonged Activation and Anticipatory Race-related Stress Scale. This scale includes four subscales. The *perseverative cognition* subscale represents the frequency, intensity, and controllability associated with how much one perseverates over a racist experience. The *secondary appraisal* subscale represents the evaluation of one's resources for managing a race-related stressor based on previous experiences and social contexts. The *anticipatory race-related stress* subscale represents one's psychological and anticipation level of experiencing a racist event. The *anticipatory body alarm response* subscale represents one's physiological response, similar to anxiety symptoms, when anticipating a racist experience.

Research suggests that because of the racism, which is historic in American society and embedded throughout individuals, institutions, and systems, race-related stress may be a chronic life stressor for Blacks increasing stress-related mental and physical health disparities (Franklin-Jackson & Carter, 2007; Harrell, 2000; Utsey & Ponterotto, 1996). In fact, researchers suggest that Blacks have higher rates of stress-related health disparities compared to any other ethnic/racial group stemming from their chronic exposure to race-related stress (Utsey, Belvet, Hubbard, Fischer, Opare-Henaku, & Gladney, 2012). Specifically, some researchers suggest that Black students experience

forms of race-related stress through microaggressions such as microinsults, microassults, and microinvalidations (Mercer, Zeigler-Hill, Wallace, & Hayes, 2011). Solorzano, Ceja, & Yosso (2000) stated that Black students who experience a vast amount of microaggressions in their academic lives may discontinue their academic journey. These experiences may include receiving subtle messages that they are not as smart as their White peers (Solorzano, Ceja, & Yosso, 2000). Researchers provided examples of the different types of microaggressions. An example of a microinsult may refer to assuming that a well-developed vocabulary is atypical for Black individuals. An example of a microassault may refer to explicit derogatory references such as using "colored" to described Black individuals. Finally, an example of microinvalidation may refer to dismissing the emotions, thoughts, and experiences of a Black individual out of assumption that they all come from urban areas (Mercer et al, 2011).

One factor that threatens academic success is race-related stress. Race-related stress is defined as the daily experiences of racism and discrimination members of the Black community in particular, experience uniquely from other racial/ethnic populations (Utsey & Ponterotto, 1996). Being a racial minority student at a predominately White institution (PWI) adds an additional layer of stress that racial majority students are not faced with (Wei, Ku, & Liao, 2011). Part of the stress Black college students experience is related to the shortage of Black students and faculty in their programs across the country (Garcia, 1980; Fries-Britt and Kelly, 2008; McGee & Martin, 2011). These experiences may contribute to increased mental health concerns such as depression and/or anxiety (Prelow, Mosher, & Bowman, 2006). Race-related stress (Utsey & Ponterotto, 1996; 1999) is the concept used to guide this study because it focuses on how

uniquely Blacks in society experience daily hassles (Lazarus & Folkman, 1984) combined with everyday racism (Essed, 1990) that are encountered on the individual, cultural, institutional, and collectivistic levels of racism. Further, Harrell (2000) found that Blacks experience stress across interpersonal, collective, cultural-symbolic, and sociopolitical contexts where race-related stress included whether their skin color, accent, and physical features would be accepted given their person-environment fit.

The impact of race-related stress has been found to have negative and profound mental and physical health effects on members in the Black community (Harrell, 2000). Psychological distress has been found to be a result of racial adversity including anxiety, depression, satisfaction with life, and self-esteem (Carter, Forsyth, Mazzula, & Williams, 2005; Noh & Kasper, 2003; Whittaker & Neville, 2010; Utsey, Chae, Brown, & Kelly, 2002). In addition, there have been physiological effects of race-related stress that may include cardio-vascular reactivity, hypertension, and cigarette smoking (Harrell, 2000). Research suggests that because of the racism, which is historic on American society and embedded throughout individuals, institutions, and systems, race-related stress may be a chronic life stressor for Black and increase stress-related mental and physical health disparities (Franklin-Jackson & Carter, 2007; Harrell, 2000; Utsey & Ponterotto, 1996). Compared to other racial/ethnic populations, Blacks have endorsed more individual and cultural race-related stress with equal levels of race-related stress at the institution level (Utsey, Chae, Brown, & Kelly, 2002). Given the added layer of race-related stress, the overall quality of life for Blacks is more negatively impacted compared to other racial/ethnic populations (Utsey, Chae, Brown, & Kelly, 2002).

Black college students who feel other groups hold more negativity towards the general Black population report experiencing more racist hassles despite previous racial discrimination (Sellers & Shelton, 2003). Researchers suggest Black students experience and cope with racism and other forms of social inequities may differ from the efforts used to cope with general life stressors (Clark, Anderson, Clark, & Williams, 1999; Greer & Brown, 2011) and this seems to look different depending on institution type. Specifically at predominately White institutions (PWIs), researchers found that Black students who experience race-related incidents primarily coped by directly responding to the perpetrator, by seeking social support, or by not responding at all (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). Other research has found that Black students attending PWIs primarily cope with race-related difficulties using denial, distraction, and other avoidant strategies, whereas Black students attending HBCUs primarily cope with race-related issues by relying on their social support systems and spirituality (Fleming, 1981). Greer and Brown (2011) investigated minority stress and the moderating role of coping strategies among 202 Black college students at both PWIs and HBCUs. Researchers used coping efforts as moderators to the minority stress-perceived stress relationship. They found that individuals high in problem-solving strategies and low in disengagement significantly moderated the relationship between minority stress and perceived stress. In addition, type of institution was the strongest predictor of academic performance (Greer & Brown, 2011); which highlights that environmental factors may contribute to one's response or experience of race-related stress.

Scholars have found that not all Black participants perceived race-related stress or have negative health outcomes as a result of racism, which suggests that a stressful

reaction depends on the person's perception of the racial event and/or how the person copes with the event (Franklin-Jackson & Carter, 2007; Carter, Forsyth, Mazzula, & Williams, 2005; Utsey, Chae, Brown, & Kelly, 2000). Racial identity may be a way to explain the different impact levels of race-related stress. Black racial identity is described as how a person identifies with their race or ethnic group based on their worldview (Helms, 2001; Thompson & Carter; 1997). The negative impact of race-related stress could be less damaging to one's mental and physical health depending on their racial identity and may serve to be a natural coping mechanism. Franklin-Jackson and Carter (2007) assessed the relationships between race-related stress, racial identity, and mental health for Black Americans. Among a sample of 255 Black adults, researchers found that both racial identity and race-related stress predicted mental health, but racial identity accounted for more of the variance in mental health. Specifically, individual race-related stress was significantly and positively related to psychological distress, but the pre-encounter phase of racial identity significantly and positively related to psychological distress with the internalization phase of racial identity was significantly inversely related to psychological distress above and beyond race-related stress (Jackson & Carter, 2007). This suggests that mental health is more impacted by how one feels about their racial group and affiliation with that group, than perceived experiences of racism.

Hardiness Construct and Psychological Health

In this section, I explore the definitions of hardiness. From there I review components of hardiness, namely control, commitment, and challenge, and discuss how they work together given the personality of an individual. I review hardiness as a

construct and populations included in the literature. I end with a review the extant literature on hardiness amongst Blacks and identify areas of dearth.

Conceptualizing hardiness. The term *hardiness* refers to a personality trait, ability, or willingness to remain relatively healthy after experiencing volumes of high stress in their life events (Kobasa, 1979; Hull et al, 1987; Schmied & Lawler, 1986). Specifically, Kobasa (1979) defined a *hardy person* as possessing three important characteristics in buffering stress: control, commitment, and challenge. The *control* component of hardiness refers to the feeling and belief system that, rather than feeling helpless or powerless, life events can be controlled or influenced when confronted with adversity (Kobasa, 1979; Maddi, 2005). Cohen (1980) suggested that the presence of choice, or perceived availability of control in a stressful situation can reduce the impact of the stressor. In addition, Wiebe (1991) operationally defined control for their study as the presence or absence of choice, where a person would have high control if choice were present or low control if choice were absent. When considering racial stressors and the control racial/ethnic groups have over them, it could be that they have low control as a group or as an individual because racism is out of their control. This construct has been shown to negatively correlate with adverse health outcomes (Kobasa, 1979; Maddi, 2002). In fact, hardiness has been considered one of the pathways to resiliency (Maddi, Khoshaba, Harvey, Fazel, & Resurreccion, 2011).

The *commitment* component of hardiness refers to a generalized sense of purpose and meaning that is expressed by seeking and becoming actively involved, or committed, in events rather than remaining withdrawn, passive, and uninvolved (Kobasa 1979; Maddi; 2005). In addition, it is suggested that individuals who are high in *commitment*

are more likely to perceive life events as meaningful and interesting despite how stressful they may be, compared to individuals low in commitment (Kobasa et al, 1982). The commitment component of hardiness could be a protective factor that Black college students use in the face of race related stressors experienced in a predominately White institution because Blacks may perceive their environment as meaningful despite the adversity they may experience. This could be in addition to common stressors of being a college student across racial and ethnic identity (e.g., academics, finances).

The *challenge* component of hardiness refers to stressful life events being perceived as a normal part of life that provides an opportunity for change and an exciting challenge for development, as opposed to a burden and barrier, (Kobasa, 1979). Challenge refers to an individual who is striving to learn from stressful experiences and interpreting them as a challenge without feeling threatened (Kobasa, Maddi, & Kahn, 1982; Maddi, 2005; Folkman, 1984). Weibe (1991) operationally defined challenge as a positive perception of a stressor (high challenge) or negative perception of a stressor (threat) for a task. Those students who choose to perceive the stressor positively follow the Kobasa's formal definition of "challenge." Black college students may learn from the challenges they experience in order to foresee and navigate future challenges.

Hardiness can be distinguished from coping and resilience. Though very similar, *coping* refers to "cognitive and behavioral efforts to master, reduce, or tolerate the internal and/or external demands that are created by a stressful transaction" (Folkman, 1984, p. 843; Lang et al., 2003). Comparatively, *hardiness* is "a precursor to coping and as such, it is a person's belief and his/her ability to cope with the demands created by a stressful transaction as well as the propensity and willingness to do so" (Lang et al., 2003,

p. 854). In other words, “hardiness is unitary construct that is an amalgam of cognition, emotion, and action aimed at not only survival, but also the enrichment of life through development” (Kobasa, Maddi, & Courington, 1981, p. 368). Like these researchers, I believe that hardiness differs from resiliency because individuals choose to pursue and positively transform a foreseeable stressor. Resiliency involves experiencing unforeseeable stressors, but being able to move forward. Some Black college students may foresee race-related stress in their programs, but have no choice, but to pursue this stressor on a daily basis.

With the combinations of having a strong control, commitment, and challenge, individuals can develop what Maddi (1999) calls, *hardy coping*. Maddi suggests that when in the face of a stressful life event, he or she can decrease the impact of the stressor by putting it into the context of a broader perspective and find a deeper understanding that would reveal what future steps to take. In order to avoid the likelihood of wellness breakdown, hardy coping strategies do not avoid the stressor but instead take a decisive action to resolve the problem so that it is no longer a stressor (Maddi, 1987; Maddi & Kobasa, 1984; Maddi, 1999). Researchers have found that the hardier the person, the higher their tendency to view stressful life events as being more tolerable and in their control and to cope through transforming stressors rather than avoid stressors (Maddi, 1999).

Hardiness has been conceptualized as a buffering agent to stress and thus related to the concept of resilience (Kobasa, 1979; Kobasa, Maddi, & Khan 1982). Both hardiness and resilience fall under aspects of positive psychology (Seligman, 1998; Sheldon & King, 2001) and positive psychology has been shown to have an influence on

the well-being of people of color (Lopez, Prossner, Edwards, Magyar-Moe, Nuefeld, & Rasmussen, 2002). Understanding virtues and characters strengths identified by positive psychology, such as hardiness, has the potential to enhance optimal mental health among people of color (Whittaker & Neville, 2009). *Hardy social support* is another application of hardiness defined by as a pattern of giving and receiving friends' authentic support, honesty, and encouragement rather than overprotection or competition (Maddi & Kobasa, 1984; Maddi, 2006).

Researchers have found hardiness to be a buffer against stress-related illness and a factor in academic retention. Hardiness positively influences coping skills, enabling one to better cope with their stress, by reframing stressful events into opportunities for personal growth, development, and empowerment (Gerson, 1998; Kobasa, 1982). In a meta-analysis by Eschleman, Bowling, and Alarcon (2010), hardiness was positively related to other personality traits that are expected to protect people from stress (i.e., self-esteem, positive affectivity, optimism). This study used the total and subscale hardiness score as a moderating variable.

Hardiness and Psychosocial Correlates. Early research on hardiness found significant relations to well-being. Kobasa (1979) investigated hardiness and its relation to stressful life events, personality, and health among 837 middle and upper level White executives that had comparably high degrees of stressful life events in the previous three years. She tested three hypotheses: (1) "among persons under stress, those who have a greater sense of control over what occurs in their lives will remain healthier than those who feel powerless in the face of external factors, (2) among persons under stress, those who feel committed to the various areas of their lives will remain healthier than those

who are alienated, and (3) among persons under stress, those who view change as a challenge will remain healthier than those who view it as a threat" (Kobasa, 1979, pp. 3-4). Hardiness was found to have buffering effects of stressful life events and the onset of illness due to those stressful life events. Results supported her hypothesis that high stress/low illness executives' had more hardiness, a stronger commitment to self, a vigorous attitude in regards to their environment, a sense of meaningfulness, and an internal sense of control, compared to those executives with high stress/high illness. Kobasa (1979) suggested that hardy or committed executives possess a trait that helps minimize the perceived stressor in any given life event.

Since this seminal study, further research suggests that a person who consistently remains healthy after experiencing high degrees of life stressors has a unique personality characteristic that sets them apart from those who fall victim to illness due to stress (Kobasa, 1979; Kobasa, Maddi, & Kahn, 1982). Hardiness can provide the necessary courage and motivation to carry out coping, social support, and self-care efforts (Maddi et al, 2005). Research suggests that it may not be a life change per se that is disruptive, but perhaps a life change that is perceived as being undesirable and uncontrollable which, in turn, produces distress (Maddi et al., 1999). For example, hardy women have reported a significantly lower range of negative life change than did nonhardy women. Rhodewalt and Agustsdottir (1984) found that compared to nonhardy college women, hardy college women reported a higher percentage of positive life experiences and greater control with a smaller percentage of events seen as moderately controllable. The results highlight one component of hardy individuals' stress resiliency is their tendency to interpret situations in less stressful ways.

Operationalizing hardiness across contexts. Hardiness was originally conceptualized and assessed within workplace settings among predominantly White, male middle-class executives (Kobasa, 1982). The very first hardiness scale was used to assess hardiness through the reflection of commitment, control, and challenge (Kobasa, 1979; Khoshaba & Maddi, 1999), but the scale measured the lack of hardiness rather than the presence of hardiness. In a literature review by Funk (1992), the author found several flaws in the five hardiness scales that existed then including confusing interpretation and unclear validity and reliability. Specifically, Funk stated that hardiness research had measurement problems, inadequacy in testing the theory of hardiness, failure to find predicted results, and that there was a neuroticism confound when measuring hardiness. In addition, the items on the scale were negatively worded, thus measuring a lack of hardiness. Although there was a breakdown of the types of participants studied (i.e., executives, employees, secretaries, students), Funk does not provide the racial/ethnic breakdown of the participants included in the studies, therefore, knowing how hardiness effects members in the Black community remains to be unknown.

Maddi et al (2005), after a few revisions, created the a measure of hardiness, called the Personal Views Survey III-R, which has been shown to work in samples of working adults, college students, and even high school students (Maddi & Khoshaba, 2001; Maddi et al., 2011). The scale uses an equal number of positively and negatively worded items for the components of commitment, control, and challenge (Maddi & Khoshaba, 2001). This 18-item scale is used to measure one's ability or willingness to pursue and transform stressors in their life. However, researchers found that the items on this scale have been interpreted differently by college students than by working adults,

leading to inconsistencies in the results (Maddi, 2002). This suggests there are differences among certain populations and how hardiness may manifest itself.

Hardiness has been studied and defined well in a variety of contexts (Lang et al., 2003). Existing literature has mainly explored hardiness among populations such as those in the executive work, military, trauma patients, and college students. Noting the different contexts of hardiness, scholars began to examine how hardiness was expressed, and experienced in different populations. For example, Lang and Goulet (2003) developed the Lang and Goulet Hardiness Scale (LGHS) specific to bereaving parents in France. The ethnic breakdown of participants consisted of 87% French Canadian, English Canadian, and "other" Canadian (Greek, Italian, Lebanese, Chinese) and 13% immigrants (Europe, Africa, South America, and Haiti). Results showed similar validity and reliability, to the original PVS III-R, in measuring hardiness with this population meaning that those who showed higher scores of hardiness gained a greater sense of personal power and a positive influence on their health.

In an academic setting, Benishek et al. (2005) developed the Revised Academic Hardiness Scale to specifically explore the role hardiness plays among students and academic stressors. The participants in this scale were high school students with only 21% Black students compared to 57% White, 9% Asian, 5% Latino/a, 3% Biracial, 1% Native American, and 4% Other. Findings showed that students who had higher hardiness scores were willing to seek help from others when faced with academic stressors (commitment). Students were willing to risk their academic standing by taking more difficult coursework (challenge). Also, students perceived their ability to positively buffer emotional reactions while receiving critical feedback and not performing at a level

that meets their own expectations (control).

However, there are more studies that have used the PVS III-R in the context of academia rather than the RAHS. The PVS III-R has been used with nursing students (Dillard, 1990), college transfer students (Falb, 1995), college athletes (Skirka, 1996), and community college students (Kafka-Tisdall, 2001). Some studies have shown non-significant relationship between hardiness and GPA among college students (Dillard, 1990; Falb, 1995). Other studies have shown significant correlations between hardiness and GPA reporting that those with greater levels of hardiness had higher a GPA (Kafka-Tisdall, 2001).

Over the course of its existence, hardiness has been studied in many populations. In almost all of the samples, demographics represented mostly the White male or female culture or a homogeneous group that was not described further. If there was mention of the racial or ethnic composition of the sample, there were few Black participants.

Hardiness among Black College Students

In this section, I will discuss the statistical trends of Blacks in higher education and the research on hardiness among Black college students. Then, I will discuss hardiness as potential for understanding Black college student success. I will then highlight the unique race-related stressors and barriers experienced by Black college students. Following, I will discuss the protective factors used towards college success. Finally, I will connect hardiness to being a potential protective factor with this population and explain the limitations and lack for understanding for this construct is validated among this population.

The context of Black higher education. To set the framework for understanding Black student experiences in higher education, we first discuss the enrollment and retention trends. Over the past 24 years, the rates of Black students have enrolled in higher education at increasing with rates despite challenges they may be facing in their programs (National Center for Educational Statistics, 2009). For example, in 1990, the percentage of Blacks enrolled in higher education was 9%, which increased to 11% in 2000 and 14% in 2009. From 1976 to 2008, Black student enrollment has increased 66%, suggesting that experiences and changes are happening to increase their intention to graduate. Since 2008, Blacks increased their enrollment by 6% compared to Whites at 1% and Latinos at 2%.

Though there have been significant increases in the number of Black students pursuing postsecondary education at Predominately White Institutions (PWIs), the retention and graduation of Black college students continues to remain below that of White students with Across levels, Black students graduating at a rate of 20% compared to White students at 41% (NCES, 2011). When examining within academic levels, at the undergraduate level Blacks at 10% successfully graduated compared to Whites at 71%. At the graduate level, Black masters students graduated at 11% compared to Whites at a rate of 64%. Similarly, Black doctoral student graduation rate at 11% is almost half its enrollment rate at 18% compared to Whites enrolling at 71% and graduating at 57% (NCES, 2010). While blacks are increasing their representation in higher education, we still seek information about what internal factors are contributing to these increased rates and whether some students utilize these factors more so, or in a different way, than other students. Since there are academic disparities across levels of Black college stduents,

therefore, having an understanding of how hardiness plays a role at all levels will help to better understand retention.

Psychosocial factors related to Black students retention. Understanding psychosocial experiences among Black students at PWI's can help identify factors that may contribute to the gap in enrollment and graduation rates. Some Black students may utilize protective factors more so than other students and thus better facilitate graduation. Other Black students may succumb to the stress and adversity that historically comes with studying at predominately White institutions. This subsection reviews the literature on barriers and protective factors that influence graduation rates among Black students in higher education. Understanding common experiences for Black college students is necessary to normalize and emphasize the factors contributing to student outcomes throughout the levels of higher education.

Barriers to graduation. Scholars have investigated individual, interpersonal, and institutional factors to better understand the reason behind these disparities. Perhaps the added layer of race-related stress makes the journey to graduation may be difficult for some students attending PWIs. The Race-Related Stress concept (Utsey and Ponterotto, 1996), suggests that, uniquely, Blacks experience daily stress in the forms of racism and discrimination. This model was derived from the conceptual framework of Lazarus and Folkman's (1984) theory of daily hassels as well as an integration of Essed's (1990) multidimensional theory of everyday racism. In the theory of daily hassels (Lazarus & Folkman, 1984), researchers suggests that the concept of stress is a multilayer phenomenon that includes environmental stressors, or daily hassles. The hassles are brought on by certain stimuli such as demands, harm, threat, or load that provoke a

stressful response. Researchers say that we all experience daily hassles from our roles in living and that these hassles are irritating and distressing to people. They say that "stress is disturbance of the person-environment relationship which is mediated cognitively through appraisal and generates adaptational efforts, or coping" and that considering macrosocial structure of a group and/or individual is important in understanding differences in perceptions of stress (Lazarus & Folkman, 1984, pg. 237).

Essed's theory of everyday racism is a four-component model. *Individual racism* is the experience at the personal level, *institutional racism* is the result of racist ideals, beliefs, and practices ingrained into the polices within a given institution, *cultural racism* is the result of the cultural practices of one group deeming themselves to be superior over another group, and *collective racism* is the organized or semi-organized intention of Whites/non-Whites to restrict the rights of Blacks (Essed, 1990; Utsey & Ponterotto, 1996). Everyday racism serves to be a theory component of race-related stress that helps emphasize racism to be an imbedded aspect in multiple layers of a Black student's life. "The concept of everyday racism relates day-to-day experiences of racial discrimination to the macrostructural context of group inequalities represented within and between nations as racial and ethnic hierarchies of competence, culture, and human progress" (Essed, 2002, pg. 203). Under the theory of race-related stress, Black college students not only deal with the stressors of being in higher education, but they also experience an added layer of racial stress on a daily basis. This unique cultural combination of stress is reason for culturally validating the Personal Views Survey-R III and ing whether a general concept of hardiness can apply to Black college students.

Race-related stress sounds similar to minority stress, but the two models differ in

their intentions. Though as equally important, minority stress is the excess stress to which individuals from stigmatized social categories are exposed as a result of their minority position (Meyer, 1995). Minorities who experience oppression from the majority group and culture in society are likely to experience stress as a result of this oppression, and therefore have higher rates of morbidity (Meyer, 1995, 2003). Because Meyer's minority stress model emphasizes the negative outcomes of racial stressors and discrimination, it is not used in this study because the focus is on how Black college students buffer the effects of stress. Race-related stress is more general to the social and institutional experiences of Blacks on a daily basis and how they may cope.

Some of the obstacles and barriers that Black college students face in the academy in addition to race-related stress include issues regarding the climate of the environment, isolation, the need for a supportive peer culture, mentorship, role models, financial support, and family and academic stressors (Boyd et al, 1979; Collins, 2001; Gloria et al, 1999; Maher, Ford, & Thompson, 2004; Negga et al, 2007). At the individual level, research has suggested that Black graduate students frequently sense that their perspectives are not valued in the classroom (Gasman et al, 2008). In a qualitative study of 40 Black graduate Ivy League students (45% masters and 55% doctoral), researchers found that students expressed feeling isolated and having financial stress (Gasman et al, 2008). At the interpersonal level, stress can take on many forms daily in a college students' life (Negga et al, 2007). Black undergraduate and graduate students often felt academically isolated in the classroom and the greater campus community (Allen-Castillitto & Maillard, 2001; Cheatham & Phelps, 1995; Gasman et al, 2008; Lett, 2003; Pruitt & Isaac, 1985). In addition, Black students may have to change themselves around

their peers, department, and institution, exceeding expectations, just to be respected (Gasman et al, 2008; Harper, 2010). Factors relate to climate and practices at the institutional level as well. In terms of curriculum, many faculty members and institutions have historically Eurocentric knowledge in the classroom despite the ending of segregation (Pruitt & Isaac, 1985). Subtle forms of discrimination against Black undergraduate and graduate students become evident from the lack of intellectual support for culturally based scholarship (Antwi-Boasiako & Asagba, 2005), support for research topics focusing on Black issues (Pruitt & Isaac, 1985), and students feeling the need to have to establish themselves academically among their White peers (Cole & Yip, 2008; Gasman et al., 2008; Pruitt & Isaac, 1985). In addition, there is a lack of inclusion of alternative racial and ethnic perspectives that often creates an unwelcoming environment for Black undergraduate and graduate students and could potentially inhibit their persistence and success (Gasman et al., 2008; Pruitt & Isaac, 1985).

Though some students are able to persevere through the adversity and continue towards earning their degree, some may experience psychological distress along the way. Research has shown that high achieving Blacks students in PWIs perceive their environment as stressful due to racial micro aggressions, daily and chronic actual and perceived racial discrimination, which, in turn, shows adverse mental health affects including symptoms of depression and generalized anxiety disorder (Berry, 2006; Carter, 2007; Ong, Fuller-Rowler, & Burrow, 2010; Torres, Driscoll, & Burrow, 2010). Pruitt and Isaac (1985) found that "some students withdraw psychologically and ultimately drop out," (p. 534). Torres, Driscoll, and Burrow (2010) and Ong, Fuller-Rowell, and Burrow (2009) examined the influence of daily racial microaggressions on mental health

among African American doctoral students and graduates of doctoral programs. Researchers found that participants revealed three categories of microaggressions including assumption of criminality/second-class citizen, underestimation of personal ability, and cultural/racial isolation which were related to greater depressive symptoms (Torres et al, 2010). Taken together, these studies show that Black students face daily racial stressors in addition to the other stressors of being college students at a Predominately White institution.

The racial barriers that Black students experience in their programs have been and continue to be an added force in their journey towards their degree. This adversity has negative effects on the mental health of Black students because of the internal and external pressures to do well or better than their peers. Though this may be the case for some Black college students, some may still choose to progress in their programs at PWI's while simultaneously enduring race-related stress. Perhaps these students choose to face adversity in hopes to overcome the stress that may come along. Perhaps some students' internal processes and perspectives on the situation serve to be advantageous to their overall success.

Protective factors. The literature has focused on the barriers faced by Black students at predominately White institutions, but there is less literature on the protective factors or supports that Black students utilize in their training, and how this influences graduation success rates. Specifically, identifying factors that contribute to the retention of Black students in higher education would be beneficial to the literature because it may empower rather discourage other members in the Black community to pursue higher and/or attain a higher degree. Gasman et al (2008) explored the experiences of 67 Black

graduate students at an Ivy League institution that supported their success. In this study, researchers found positive and protective factors influencing their success involving themes regarding the significance of mentoring, advising, peer support, and relying on their spirituality were most prevalent in the survey results (Gasman, 2008).

According to Cheatham and Phelps (1995), professional identities are developed in graduate students from a composition of professional models and individuals both positive and negative. This point is especially significant for Black students, who often seek faculty mentors who can understand their unique cultural issues (Walker, Hanley, & Wright, 2001). Given the demographic makeup of the professoriate, it would be impossible for Black faculty to be solely responsible for advising Black students (Walker, Hanley, & Wright, 2001). Having supportive mentors may maintain or increase Black students' internal processes as a protective factor while attending predominately White institutions. According to Walker, Hanley, and Wright (2001), in order for Black students to succeed academically, they require successful persons with whomthey can identify. By that, scholars highlighted that non-academic Black professionals serve to be beneficial to a Black student's academic and professional development more so than a Black academic because of less time constraints. In addition to positive faculty-student relationship, having good relationships with peers also serves to be very important. Though most interactions are outside of their racial group, Gasman (2008) suggests that having peer interactions are significant in terms of Black students' experiences and persistence through graduate school.

Underrepresented students also seek advice from professional counselors including campus psychological and career services, student affairs professionals, and

administrators in academic or nonacademic departments during times of emotional need (Cheatham & Phelps, 1995; Lucas & Berkel, 2005). However, Black students underutilize mental health services more so than other racial/ethnic minority groups (Barksdale & Molock, 2009), and when they chose to seek services, their concerns mainly revolve around impersonal matters (e.g., educational, career, social welfare, legal; Sheu & Sedlacek, 2004). Given their reluctance to seek out auxillary services, more research is needed to understand internal protective factors for Black college students. With less external use of support services, some Black college students may then utilize their internal coping processes as support throughout their experience.

Coping among Black college students. Given that the literature on some of barriers and protective factors that Black college students experience, it is important to discuss the overall coping strategies of this population as it to, relates to protective factors. Research states that ethnicity and culture influence the coping strategies chosen (Smith & Dust, 2006). As this study focused on the use of hardiness and how it precedes coping among Black college students, understanding what we know about coping within the Black college student population may better help to understand the context of hardiness as a precursor to coping strategies.

Research states that Blacks cope with elevated levels of racism and other forms of social inequality differently than with general life stressors (Greer & Brown, 2011). In the context of a predominately White institution, overt and covert racism is still experienced by Black students suggesting that the way they cope with this differs from the other stressors of being in higher education at a PWI. Under minority stress, researchers found that among 202 Black college students, the highest positive correlation

was between spirituality and problem-oriented coping on the COPE Inventory in order to cope with minority stress (Greer & Brown, 2011). Problem-oriented coping was partially operationalized as engaging in positive reinterpretation. This term seems similar to the challenge component of hardiness and suggests that Black students may positively transform the stressors of being a minority at a PWI. In a study by Smith and Dust (2006), researchers examined the role that dispositional traits (i.e. preferred/type coping style, self-concept clarity, self-esteem, emotion regulation, problem-solving style, anxiety) and appraisal (i.e., severity, impact, desirability of the event, perceived stress) influenced the coping strategies used by 211 Black college students and their most personal stressful situations. The survey data also included whether students felt the stressful situations were in their control or not. Results found that dispositional traits and appraisal are indicative of Black students' coping style which suggests that there are internal processes happening in order for a Black student to cope with stressors, particularly around minority stress.

Other ways Black students cope with their stress is through religious affiliations (Chapman & Steger, 2010) and spirituality (Riggins, McNeal, & Herndon, 2008; Sheu & Sedlacek, 2004). Active coping was found to moderate the racial microaggression-perceived stress link such that individuals who endorse active coping behaviors reported lower perceived stress. Perhaps this active coping could be active hardiness in that it's similar to the commitment component of hardiness (Greer & Brown, 2011; Smith & Dust, 2006).

Given that we know more about the external factors that facilitate success towards graduation among Black college students, less is known as to the internal factors, such as

hardiness, that may facilitate the coping strategies used in the population. However, research does not address that perhaps there's a unique way that Black students' cope with all of their stressors, including race-related stress, or a way that is culturally specific to their experiences. Though discussed briefly, gaining a better understanding of the social and cultural contexts for Black students is important for a deeper meaning of how students perceive their experience.

Hardiness among Black college students. Remarkably few studies have examined the use of hardiness amongst Blacks given their unique experience of daily racial stressors. In one of the few studies, Harris (2004) examined the effect of health value and ethnicity on the relationship between hardiness and health behaviors among 80 Black and 100 White college students. Specifically, the moderating and mediating role of health value in the hardiness–health behavior relation was explored. Racial differences in correlations among hardiness, control, and commitment were found, such that Blacks showed greater levels of control and commitment than did Whites. In another study involving Black college students, Whittaker and Neville (2010) explored the relationship between racial identity attitudes (Multiculturalists, Immersion, Afrocentric, Self-hatred, Low Race Salience) and mental health outcomes with 317 Black college students. Of the three hypotheses studied, one of questions centered about whether there was an association between racial identity attitude clusters and psychological well-being, or hardiness. Results found that those students who had a multiculturalists attitude had higher levels of psychological well-being. In a similar study, but with Black and biracial participants, hardiness was positively related to racial identity and self-esteem in the immediate aftermath of a racist encounter (Best, 2001). These findings suggest that

individuals with higher hardiness scores were more comfortable with their identity and their status in society. Those who experience daily race-related stress, depending on their racial identity attitude, may vary in their level of hardiness.

Racial Identity and Black College Students

In describing these identities, Blacks who identify in the *pre-encounter assimilation* stage, are strongly pro-American with race not being as salient to them (Cokley, 2002). Blacks in the *pre-encounter miseducation* stage, internalize the negative stereotypes offensive to Blacks (Cokley, 2002) and who have a negative and stereotypical mindset of members in the Black community (Whittaker & Neville, 2010). Blacks in the *pre-encounter self-hatred* stage have negative views about being Black as a result of the miseducation stage (Cokley, 2002; Whittaker & Neville, 2010). The immersion-emersion stage describes Blacks, post encounter, who immerse themselves in the Black culture and reject the dominant culture (Whittaker & Neville, 2010). Internalization Afrocentric stage describes individuals finding a sense of reconciliation with being Black in a diverse society with importance placed on Black cultural issues (Worrell et al., 2006). Finally, Blacks in the internalization multiculturalist stage have a positive pro-Black identity and an appreciation for others diverse groups (Whittaker & Neville, 2010).

Racial identity may be one way to explain differing impact levels of race-related stress. Black racial identity is described as the extent to which a person identifies with their race or ethnic group based on their worldview (Helms, 2001; Thompson & Carter; 1997). The negative impact of race-related stress could be less damaging to one's mental and physical health depending on their level of racial identity and may serve to be a natural coping mechanism. Franklin-Jackson and Carter (2007) assessed relationships

between race-related stress, racial identity, and mental health for Black Americans. Specifically, individual race-related stress was significantly and positively related to psychological distress, but the pre-encounter phase of racial identity was significantly and positively related to psychological distress while the internalization phase of racial identity was significantly inversely related to psychological distress above and beyond race-related stress (Jackson & Carter, 2007). This suggests that mental health may be more impacted by how one feels about their racial group and affiliation with that group, than perceived experiences of racism.

Racial identity in an educational setting may impact student achievement. However, research has been contradictory in its findings. Fordham and Ogbu (1986) stated that one of the believed contributors to low academic achievement among Black students was not identifying with being Black. However, the same researchers also stated that Blacks who minimize their connection to their culture backgrounds have a better chance of academic success (Awad, 2007; Fordham & Ogbu, 1986). Consistent with the aforementioned statement, other scholars have stated that a Black student with high racial salience, racial centrality, and awareness of societal discrimination have better academic outcomes (Chavous, Hilkene Bernat, Schmeelk-Cone, Caldwell, Kohn-Wood, & Zimmerman, 2003; Helms & Parham, 1990; Sellers, Chavous, Cooke, 1998). Other scholars have expressed that Black students become race-less to increase their competiveness in academic settings while high achieving Black students have more of a sense of empowerment and strength as a result of being Black and high achieving (Awad, 2007; Phinney, 1990; Ward, 1990). In a study by Awad (2007), among 313 Black college students, racial identity did not predict grade or test performances outcomes. In

contrast, Chavous et al. (1998) found that high racial centrality and minority ideology was associated with higher GPA among a sample of 248 Black college students. With inconsistent research, it is important to continue to test racial identity in this population as it relates to race-related stress and hardiness given that these may also be related to one's racial identity.

Depending on where individuals may position themselves within the racial identity model, their mental health and stress may vary. Researchers expressed "it seems logical that a certain level of hardiness is needed to develop a positive racial identity that will protect against stressors" (Whittaker & Neville, 2010, p. 388) in this case, race-related stressors.

Rationale and Purpose

Three main summaries gathered from the literature connect race-related stress, racial identity, and hardiness in order to understand the impact on Black student academic success. First, research consistently demonstrates that some Black college students may be frequently experiencing race-related stress, which may place demands on them to continuously pursue challenges, face obstacles, and deal with daily hassles within the context academic institutions (Franklin-Jackson & Carter, 2007; Gasman, Hirschfield, & Vultaggio, 2008; Williams, Brewley, Reed, White, & Davis-Haley, 2005). Secondly, race-related stress (Utsey & Ponterotto, 1996; Utsey et al., 2012), racial identity (Cross, 1971; Helms & Parham, 1990; Worrell et al., 2004), and the relationship between the two, have all been associated with various mental health consequences (Franklin-Jackson & Carter, 2007). Lastly, while much literature has begun to explore other protective factors among Black college students (Fries-Britt &Kelly, 2005; Lett & Wright, 2003;

Lewis, Ginsberg, & Davies, 2004; Ong et al., 2009), little research has focused on hardiness (Kobasa, 1979ab; Maddi, 2005; Maddi et al, 2011) as a potential protective factor for Black students, despite its consistent connection to academic success within other populations.

The hardiness construct has produced a vast amount of literature that has helped us to better understand the personality some individuals may have and utilize in the face of adversity and stress in their lives. Research has consistently shown hardiness to be positively correlated with resiliency and that it serves to be a precursor to positive coping strategies. In an academic setting, it has shown to facilitate academic success and success towards graduation. In addition, it has produced more findings on diverse populations and found to be correlated with other outcome variables such as self-esteem, racial identity, and depression and anxiety.

Although existing research has found important relations between hardiness and psychological outcomes, limitations remain. The majority of hardiness research has been conducted with predominately White male participants (Wiebe, 1991), with little research on people of color, specifically Black individuals. In addition, there have been studies that have clearly identified participants; however, if there were Black participants, they were consistently outnumbered in the overall sample. Once there were more published articles that included racial/ethnic diverse samples, findings showed there to be differences among certain populations depending on the context. Still, articles that included Black college students were overall reporting hardiness results based on a small percentage of Black participants. This serves to be problematic because the hardiness

construct may not be generalizable to everyone. Furthermore, considerations for race-related stress do not seem to be present in previous literature.

Exploring and understanding the experiences of underrepresented groups in higher education provides greater awareness and knowledge that fosters a more pluralistic lens in society.

Although there is a rich body of research on hardiness, much of the literature does not include many studies on the college age population, specifically to include Black students or does not take into consideration their distinctive racial and environmental circumstances while attending majority institutions. In examining existing literature, there are relatively few studies specifically exploring how hardiness manifests in the Black population and its relationships with both racial identity and race-related stress on psychological health outcomes. Hardiness offers a useful construct in understanding protective factors related to race-related stress, however limited attention has been given to protective factors that are unique to Black college students. The qualities of commitment, positive response to challenge, and control influence the way in which hardy people appraise stressful events (Kobasa, 1982; Maddi, 2002). Black college students may have no other option, but to face race-related stress on a daily basis and within the context of an academic setting. Of the literature that has included Black college students, differences have been found between Black and White college students, which suggest that hardiness may manifest differently in certain populations. Therefore, the purpose of this study explores the relationship between hardiness, racial identity, and race-related stress on psychological health outcomes among Black college students.

APPENDIX B

INFORMED CONSENT

Researcher's Name: Jasmine Tilghman
Researcher's Contact Information: University of Missouri, Department of Educational, School, and Counseling Psychology, 14 Hill Hall, Columbia, MO 65211

Project Title: Cultural Validity of the Personal Views Survey III-R—Revised for Black College Students

YOU ARE BEING ASKED TO VOLUNTEER TO PARTICIPATE IN A RESEARCH STUDY

You are being asked to participate in a research study. This research is being conducted to help validate the hardiness experiences of Black college students at Predominately White Institutions. When you are invited to participate in research, you have the right to be informed about the study procedures so that you can decide whether you want to consent to participation. This form may contain words that you do not know. Please ask the researcher to explain any words or information that you do not understand.

You have the right to know what you will be asked to do so that you can decide whether or not to be in the study. Your participation is voluntary. You do not have to be in the study if you do not want to. You may refuse to be in the study and nothing will happen. If you do not want to continue to be in the study, you may stop at any time without penalty or loss of benefits to which you are otherwise entitled.

WHY ARE THEY DOING THIS STUDY?

The purpose of this research is to validate the Personal Views Survey III-R with Black college students and to better understand Black college students experiences of hardiness.

HOW LONG WILL I BE IN THE STUDY?

The online survey will take approximately 30 minutes to complete. Upon completion, you will be asked to be contacted for a follow-up interview or 1 of 3 focus groups. The follow-up will take approximately 60-90 minutes long.

WHAT AM I BEING ASKED TO DO?

You will be asked to answer questions pertaining to your demographics, present levels of hardiness, self-esteem, anxiety, depression, and racial identity development. The follow-up interview or focus group will be audio recorded in order to transcribe for the study.

HOW MANY PEOPLE WILL BE IN THE STUDY?

There will be approximately 300 participants to complete the survey. Follow-ups will either be individual or consists of 8 to 10 people in each group.

WHAT ARE THE BENEFITS OF BEING IN THE STUDY?

Your participation will benefit others interested in validating and understanding the hardiness experiences of Black college students attending PWIs. It will also benefit other students who aspire to seek higher education. In addition, it will benefit other PWIs in learning more about the protective factors, such as hardiness, and how those relate to academic success in Black college students.

WHAT ARE THE RISKS OF BEING IN THE STUDY?

Your participation in this study is not expected to cause you any risks greater than those encountered in everyday life.

CONFIDENTIALITY

Your identity and participation will remain confidential. Your name will not be given to anyone other than the researcher. Identifiable information will be deleted from documents. Data will be stored in the researcher's personal computer and will be locked and password protected. Only the researcher and researcher team will have access to the data. The data will be kept for a period of 5 years and then be destroyed.

PRIVACY

The information you will provide us is considered Private Health Information and subject to HIPAA regulations.

WHAT WILL I RECEIVE FROM BEING IN THE STUDY?

You will not receive compensation for participation in this study.

WHAT IF I AM INJURED?

It is not the policy of the University of Missouri to compensate human subjects in the event the research results in injury. The University of Missouri, in fulfilling its public responsibility, has provided medical, professional and general liability insurance coverage for any injury in the event such injury is caused by the negligence of the University of Missouri, its faculty and staff. The University of Missouri also provides, within the limitations of the laws of the State of Missouri, facilities and medical attention to subjects who suffer injuries while participating in the research projects of the University of Missouri. In the event you have suffered injury as the result of participation in this research program, you are to contact the Risk Management Officer, telephone number (573) 882-1181, at the Health Sciences Center, who can review the matter and provide further information. This statement is not to be construed as an admission of liability.

If you do not understand what is written above, please contact the investigator listed below.

WILL THE RESEARCHER TELL ME IF SOMETHING CHANGES IN THE STUDY?

Informed Consent is an ongoing process that requires communication between the researcher and participants. The participant should comprehend what they are being asked to do so that they can make an informed decision about whether they will participate in the research study. You will be informed of any new information discovered during the course of this study that might influence your health, welfare, or willingness to be in this study.

WHERE CAN I LEARN MORE ABOUT PARTICIPATING IN RESEARCH?

The Campus Institutional Review Board offers educational opportunities to research participants, prospective participants, or their communities to enhance their understanding of research involving human participants, the IRB process, the responsibilities of the investigator and the IRB. You may access the Campus IRB website to learn more about the human subject research process at http://www.research.missouri.edu/cirb/index.htm

WHO DO I CONTACT IF I HAVE QUESTIONS, CONCERNS, OR COMPLAINTS?

Please contact Jasmine Tilghman, Department of Educational, School, and Counseling Psychology, 14 Hill Hall, Columbia, MO 65211, 636-734-1301, jdt989@mail.missouri.edu if you have any questions about the research.

WHO DO I CONTACT IF I HAVE QUESTIONS ABOUT MY RIGHTS, CONCERNS, COMPLAINTS OR COMMENTS ABOUT THE RESEARCH?

The Campus Institutional Review Board approved this research study. You may contact the Campus Institutional Review Board if you have questions about your rights, concerns, complaints or comments as a research participant.

You can contact the Campus Institutional Review Board directly by telephone or email to voice or solicit any concerns, questions, input or complaints about the research study.

Campus Institutional Review Board
483 McReynolds Hall
Columbia, MO 65211
573-882-9585
E-Mail: umcresearchcirb@missouri.edu
Website: http://www.research.missouri.edu/cirb/index.htm

ELECTRONIC SIGNATURE

I have read this consent form and my questions have been answered. My signature below means that I do want to be in the study. I know that I can remove myself from the study at any time without any problems.

ACCEPT DECLINE

APPENDIX C **ID#_____**

QUESTIONNAIRE

Survey of Hardiness among Black College Students

Jasmine Tilghman

Department of Educational, School and Counseling Psychology

University of Missouri-Columbia

Personal Views Survey III-R

Directions: Using the 4-point scale, please tell us how much you agree or disagree with each statement. Circle the appropriate number.

No.	Item	Not at all True	Somewhat True	True	Very True
1	By working hard, you can achieve your goal.	0	1	2	3
2	I don't like to make changes in my everyday schedule.	0	1	2	3
3	I really look forward to my work.	0	1	2	3
4	I am not equipped to handle the unexpected problems of life.	0	1	2	3
5	Most of what happens in life is just meant to be.	0	1	2	3
6	When I make plans, I'm certain I can make them work.	0	1	2	3
7	No matter how hard I try, my efforts usually accomplish little.	0	1	2	3
8	I like a lot of variety in my work.	0	1	2	3
9	Most of the time, people listen carefully to what I have to say.	0	1	2	3
10	Thinking of yourself as a free person just leads to frustration.	0	1	2	3
11	Trying your best at what you do usually pays off in the end.	0	1	2	3

12	My mistakes are usually very difficult to correct.	0	1	2	3
13	It bothers me when my daily routine gets interrupted.	0	1	2	3
14	I often wake up eager to take up life wherever it left off.	0	1	2	3
15	Lots of times, I really don't know my own mind.	0	1	2	3
16	Changes in routine provoke me to learn.	0	1	2	3
17	Most days, life is really interesting and exciting for me.	0	1	2	3
18	Its hard to imagine anyone getting excited about working.	0	1	2	3

Rosenberg Self-Esteem Scale

Directions: Using the 4-point scale, please tell us how much you agree or disagree with each statement. Circle appropriate letter(s).

No.	Item	Strongly Agree	Agree	Disagree	Strongly Disagree
1	On the whole, I am satisfied with myself.	SA	**A**	**D**	**SD**
2	At times, I think I am no good at all.	SA	A	D	SD
3	I feel that I have a number of good	SA	A	D	SD

	qualities.				
4	I am able to do things as well as most other people.	SA	A	D	SD
5	I feel I do not have much to be proud of.	SA	A	D	SD
6	I certainly feel useless at times.	SA	A	D	SD
7	I feel that I'm a person of worth, at least on an equal plan with others.	SA	A	D	SD
8	I wish I could have more respect for myself.	SA	A	D	SD
9	All in all, I am inclined to feel that I am a failure.	SA	A	D	SD
10	I take a positive attitude toward myself	SA	A	D	SD

Spielberger State Trait Anxiety Scale

Directions: Using the 4-point scale, please tell us how you feel *right now*, at *this moment*. Circle the appropriate number.					
No.	**Item**	**Not At All**	**Somewhat**	**Moderately So**	**Very Much So**
1	I feel calm.	1	2	3	4
2	I feel secure.	1	2	3	4

3	I am tense.	1	2	3	4
4	I feel strained.	1	2	3	4
5	I feel at ease.	1	2	3	4
6	I feel upset.	1	2	3	4
7	I am presently worrying over possible misfortunes.	1	2	3	4
8	I feel satisfied.	1	2	3	4
9	I feel frightened.	1	2	3	4
10	I feel comfortable.	1	2	3	4
11	I feel self-confident.	1	2	3	4
12	I feel nervous.	1	2	3	4
13	I am jittery.	1	2	3	4
14	I feel indecisive.	1	2	3	4
15	I am relaxed.	1	2	3	4
16	I feel content.	1	2	3	4

17	I am worried.	1	2	3	4
18	I feel confused.	1	2	3	4
19	I feel steady.	1	2	3	4
20	I feel pleasant.	1	2	3	4
21	I feel pleasant.	1	2	3	4
22	I feel nervous and restless.	1	2	3	4
23	I feel satisfied with myself	1	2	3	4
24	I wish I could be as happy as others seem to be.	1	2	3	4
25	I feel like a failure	1	2	3	4
26	I feel rested	1	2	3	4
27	I am “calm, cool, and collected”	1	2	3	4
28	I feel that difficulties are piling up so that I cannot overcome them	1	2	3	4
29	I worry too much over something that really doesn’t matter	1	2	3	4
30	I am happy.	1	2	3	4

31	I have disturbing thoughts.	1	2	3	4
32	I lack self-confidence.	1	2	3	4
33	I feel secure.	1	2	3	4
34	I make decisions easily.	1	2	3	4
35	I feel inadequate.	1	2	3	4
36	I am content.	1	2	3	4
37	Some unimportant thought runs through my mind and bothers me.	1	2	3	4
38	I take disappointments so keenly that I can't put them out of my mind.	1	2	3	4
39	I am a steady person	1	2	3	4
40	I get in a state of tension or turmoil as I think over my recent concerns and interests.	1	2	3	4

Center for Epistemological Studies-Depression

Directions: Using the 4-point scale, please circle the number that best describes how you have felt or behaved during the past week

No.	Item	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	Most or all of the time (5-7 days)
1	I was bothered by things that usually don't bother me.	1	2	3	4
2	I did not feel like eating; my appetite was poor.	1	2	3	4
3	I felt that I could not shake off the blues even with help from my family and friends.	1	2	3	4
4	I felt that I was just as good as other people.	1	2	3	4
5	I had trouble keeping my mind on what I was doing.	1	2	3	4
6	I felt depressed.	1	2	3	4
7	I felt that everything I did was an effort.	1	2	3	4
8	I felt hopeful about the future.	1	2	3	4
9	I thought my life had been a failure.	1	2	3	4
10	I felt fearful.	1	2	3	4

11	My sleep was restless.	1	2	3	4
12	I was happy.	1	2	3	4
13	I talked less than usual.	1	2	3	4
14	I felt lonely.	1	2	3	4
15	People were unfriendly.	1	2	3	4
16	I enjoyed life.	1	2	3	4
17	I had crying spells.	1	2	3	4
18	I felt sad.	1	2	3	4
19	I felt that people dislike me.	1	2	3	4
20	I could not get “going.”	1	2	3	4

Cross Racial Identity Profile

Directions: Read each item and indicate to what degree it reflects your own thoughts and feelings at the present time, using the 7-point scale below.								
No.	**Item**	**Strongly Disagree (1)**	**Disagree (2)**	**Somewhat Disagree (3)**	**Neither Agree nor Disagree (4)**	**Somewhat Agree (5)**	**Agree (6)**	**Strongly Agree (7)**
1	As an African American, life in America is good for me.	1	2	3	4	5	6	7
2	I think of myself primarily as an American, and seldom as a member of a racial group.	1	2	3	4	5	6	7
3	Too many Blacks "glamorize" the drug trade and fail to see opportunities that don't	1	2	3	4	5	6	7

	involve crime.							
4	I go through periods when I am down on myself because I am Black.	1	2	3	4	5	6	7
5	As a multiculturalist, I am connected to many groups (Hispanics, Asian-Americans, Whites, Jews, gays & lesbians, etc.)	1	2	3	4	5	6	7
6	I have a strong feeling of hatred and disdain for all White people.	1	2	3	4	5	6	7
7	I see and think about things from an Afrocentric perspective.	1	2	3	4	5	6	7
8	When I walk into a room, I always take note of the racial make-up of the	1	2	3	4	5	6	7

	people around me.							
9	I am not so much a member of a racial group, as I am an American.	1	2	3	4	5	6	7
10	I sometimes struggle with negative feelings about being Black.	1	2	3	4	5	6	7
11	My relationship with God plays an important role in my life.	1	2	3	4	5	6	7
12	Blacks place more emphasis on having a good time than on hard work.	1	2	3	4	5	6	7
13	I believe that only those Black people who accept an Afrocentric perspective can truly solve the race problem in	1	2	3	4	5	6	7

	American.							
14	I hate the White community and all that it represents.	1	2	3	4	5	6	7
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.	1	2	3	4	5	6	7
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.)	1	2	3	4	5	6	7
17	When I look in the mirror at my Black	1	2	3	4	5	6	7

	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.	1	2	3	4	5	6	7
19	When I read the newspaper or a magazine, I always look for articles and stories that deal with race and ethnic issues.	1	2	3	4	5	6	7
20	Many African Americans are too lazy to see opportunities that are right in front of them.	1	2	3	4	5	6	7
21	As far as I am concerned, affirmative action will be needed for a long time.	1	2	3	4	5	6	7

22	Black people should be destroyed.	1	2	3	4	5	6	7
23	White people should be destroyed.	1	2	3	4	5	6	7
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.)	1	2	3	4	5	6	7
25	Privately, I sometimes have negative feelings about being Black.	1	2	3	4	5	6	7
26	If I had to put myself into categories, first I would say I am an American, and second I am a	1	2	3	4	5	6	7

	member of a racial group.							
27	My feelings and thoughts about God are very important to me.	1	2	3	4	5	6	7
28	African Americans are too quick to turn to crime to solve their problems.	1	2	3	4	5	6	7
29	When I have a chance to decorate room, I tend to select pictures, posters, or works of art that express strong racial-cultural themes.	1	2	3	4	5	6	7
30	I hate White people.	1	2	3	4	5	6	7
31	I respect the ideas that other Black people hold, but I believe that the best way to solve our problems is to think	1	2	3	4	5	6	7

	Afrocentrically.							
32	When I vote in an election, the first thing I think about is the candidate's record on racial and cultural issues.	1	2	3	4	5	6	7
33	I believe it is important to have both a Black identity and a multicultural perspectives, because this connects me to other groups (Hispanics, Asian-Americans, Whites, Jews, gays & lesbians, etc.)	1	2	3	4	5	6	7
34	I have developed an identity that stresses my experiences as an American more than my	1	2	3	4	5	6	7

	experiences s a member of a racial group.							
35	During a typical week in my life, I think about racial and cultural issues many, many times.	1	2	3	4	5	6	7
36	Blacks place too much importance on racial protest and not enough on hard work and education.	1	2	3	4	5	6	7
37	Black people will never be free until we embrace and Afrocentric perspective.	1	2	3	4	5	6	7
38	My negative feelings toward White people are very intense.	1	2	3	4	5	6	7
39	I sometimes have negative feelings about	1	2	3	4	5	6	7

	being Black.							
40	As a multiculturalist, it is important for me to be connected with individuals from all cultural backgrounds (Latinos, gays & lesbians, Jews, Native Americans, Asian-Americans, etc.)	1	2	3	4	5	6	7

Prolonged Activation and Anticipatory Race-Related Scale

Please describe an event/situation involving racism that you (or someone close to you like a family member or close friend) experienced in the past. Some examples of racism include being treated unfairly because of your race; being ridiculed, humiliated, or harassed because of your race; being denied a job, housing, or access to other services because of your race; or observing a situation in which another person of your race was harassed or mistreated because of their race. These are just a few examples of how you or someone close to you might experience racism. It would be impossible to list all of the ways in which a person can experience racism, so you must decide if an event/situation happened to you because of your race. When describing your experience with racism, please provide as much detail as possible.

Directions: On a scale from 1 to 7, please describe an event/situation involving racism of you or someone close to you.

No.	Item	1	2	3	4	5	6	7
1	On a scale from 1 to 7, I would describe my experience with racism as	Not at all stressful (1)	Un-Stressful (2)	Somewhat Un-Stressful (3)	Undecided (4)	Somewhat Stressful (5)	Stressful (6)	Extremely Stressful (7)
2	In the days/weeks after my experience with racism, I thought about it	Not at all (1)	Once Weekly (2)	2 to 3 times a week (3)	3 or more times a week (4)	Once a day (5)	2 to 3 times a day (6)	3 times a day (7)
3	Whenever I thought about my experience with racism, I would think	Did not think about it	Less than 1 minutes	1 to 5 minutes (3)	5 to 20 minutes (4)	20 minutes or more	Less than 1 hour (6)	Could not stop thinking

	about it for	(1)	(2)			(5)		about it (7)
4	In the days/weeks after my experience with racism, I continued to think about it for	Did not think about it at all (1)	Less than 7 days (2)	7 to 30 days (3)	1 to 2 months (4)	2 to 5 months (5)	6 to 9 months (6)	I still think about it (7)
5	I would think about my experience with racism even when I didn't mean to	Never (1)	Not usually (2)	Rarely (3)	Sometimes (4)	Often (5)	Very Often (6)	All the time (7)
6	Black people have always had to deal with these kinds of events/situations, so my experience with racism was something I could manage	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
7	At the time the event/situation occurred, I felt prepared to deal with it	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
8	At the time the event/situation occurred, I was able to think of ways to deal with it	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
9	I felt I had what I needed to deal with the	Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly

	event/situation	Disagree (1)	(2)	Disagree (3)	Agree nor Disagree (4)	Agree (5)	(6)	Agree (7)
10	When I am around White people, I expect them to say or do something racist	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
11	I believe that most Black people will experience some form of racism in the future	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
12	I know that if I go where there are mostly White people, there is a good chance I will experience racism	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
13	I believe there is a good chance that I will experience racism in the future	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
14	I can feel my hands start	Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly

	to shake whenever I think I am about to experience racism	Disagree (1)	(2)	Disagree (3)	Agree nor Disagree (4)	Agree (5)	(6)	Agree (7)
15	I get chest pains whenever I think I am about to experience racism	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
16	My hands (or other body parts) sweat whenever I think I am about to experience racism	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)
17	I get a lump (or dryness) in my throat whenever I think I am about to experience racism	Strongly Disagree (1)	Disagree (2)	Somewhat Disagree (3)	Neither Agree nor Disagree (4)	Somewhat Agree (5)	Agree (6)	Strongly Agree (7)

Demographic Questionnaire

Directions: Please tell us about yourself by filling in or circling the following information as completely as possible:

1. **Age** _____ **2. Gender:** _____Male _____Female _____Transgender

3. **Sexual Orientation** a. heterosexual b. lesbian c. gay d. bisexual e. queer f. Other (please specify_____)

4. **State (i.e., Missouri)** _____ **5. University Type (i.e., HBCU, PWI, HIS)**_____

6. **Degree Program or Major** _____

7. **What year are you?**
   a. Freshman
   b. Sophomore
   c. Junior
   d. Senior
   e. Post-bachelors
   f. Masters
   g. Doctoral
   h. Professional (Law, Medicine)
   i. Other (please specify_____)

8. **What race do you primarily identify as? (circle all that apply)**
   a. Asian/Asian American
   b. Black
   c. Latino/Hispanic
   d. White
   e. Native American
   f. Biracial/Multiracial (please specify_____)

9. **What is your primary ethnic background (for example, African American, Filipino, Chinese, Taiwanese, French, Mexican American, Italian, Haitian, English, Cuban, etc.)?**
   _____

10. **What is your approximate GPA?** _____

11. Please indicate the highest level of education completed by each of your parents:

	Mother	**Father**
Less than high school	A	A
High school/GED	B	B
Some college or AA	C	C
College graduate (B.A. /B.S	D	D
Some graduate school	E	E
Graduate degree	F	F
Don't know	G	G

12. Do you receive or are you able to receive need based financial assistance (e.g., Federal Pell Grants, Federal Supplemental Education Opportunity Grant (FSEOG), Federal Direct Loans, Federal Perkins Loans, etc.)?

Yes **No**

13. Do you identify as first-generation college student, graduate student, doctoral student? Circle all that apply.

14. Would you be willing to be contacted for a follow-up interview lasting 60-90 minutes to further discuss your experience of hardiness as a Black college student?

Yes **No**

15. If so, please provide your email address and phone number below…

Email Address_____ **Phone Number**_____

Do you have any comments about the survey that you would like to share? If so, please record these below.

_____

_____

_____

_____

_____

_____

Thank you so much for your participation

APPENDIX D

TABLES

Table 1

Skewness and Kurtosis of Variable Measures

Variable	Skewness	Kurtosis
Personal Views Survey III-R		
Commitment	-.49	-.07
Challenge	-.52	-.20
Control	-.34	-.23
Total Score	-.50	.10
Cross Racial Identity Scale		
Assimilation	.90	.02
Miseducation	.45	-.77
Self-Hatred	1.58	1.56
Anti-White	1.88	3.10
Afrocentricity	.46	-.27
Multiculturalist	-1.40	2.15
Prolonged Anticipatory and Activation Race-Related Stress Scale		
Perseverative Cognition	.04	-.92
Secondary Appraisal	-.32	-.68
Race-related Stress	-.94	.72
Body Alarm Response	1.02	.41
Rosenberg Self-Esteem Scale	-1.38	2.03
Center for Epistemological Studies-Depression	.76	.73
State-Trait Anxiety Inventory	.56	-.29
	.53	-.53

Note: Skewness and Kurtosis of variable total and subscale scores.

Table 2.

Full Sample: Means, Standard Deviations, Ranges, and Correlations Among the Measured Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.COMM	**.61**																
2.CHALL	.50**	**.62**															
3.CONT	.53**	.36**	**.47**														
4. RSES	.35**	.28**	.26**	**.92**													
5. CESD	-.35**	-.26**	-.26**	.27**	**.72**												
6. STAIS	-.55**	-.45**	-.35**	-.33**	.48**	**.94**											
7. STAIT	-.68**	-.48**	-49**	-.44**	.51**	.78**	**.91**										
8. PPC	-.00	-.12	-.10	-.03	.20**	.16*	.17*	**.86**									
9. PSA	.10	.10	.07	.05	-.02	-.11	-.15*	-.23**	**.86**								
10.PARRS	-.05	.00	-.09	.03	.05	.12	.09	.48**	.09	**.82**							
11. ABAR	-.01	-.13	-.04	.09	.21**	.26**	.22**	.26**	-.04	.28**	**.86**						
12. PA	-.10	.01	.10	.00	.09	-.02	-.02	-.28**	-.01	-.40**	-.13	**.86**					
13. PM	-.21**	-.10	-.12	-.25**	.23**	.17*	.17*	-.20**	.13	-.18**	-.01	.39**	**.82**				
14. PSH	-.20**	-.25**	-.11**	-.21**	.24**	.25**	.30**	.18**	-.07	-.01	.11	.20**	.31**	**.89**			
15.IEAW	-.23**	-.23**	-.17*	-.13	.35**	.21**	.28**	.26**	-.01	.16*	.24**	-.11	.02	.28**	**.86**		
16. IA	-.09**	-.17*	-.03	-.06	.31**	.20**	.22**	.26**	-.01	.26**	.28**	.12	.22**	.22**	.40**	**.78**	
17. IMCI	.20**	.09	.18**	.03	-.05	-.09	-.18*	.05	.21**	.23**	.10	-.06	-.02	-.12	-.21**	.06	**.85**
M	13.00	13.56	11.31	32.59	40.68	38.79	40.00	19.64	17.72	20.10	9.28	12.62	14.21	9.51	8.48	14.43	28.72
SD	2.74	2.39	3.04	6.83	7.12	12.26	11.43	7.68	6.45	5.39	5.68	7.36	6.70	6.50	5.10	5.80	6.01
Range	4-18	7-18	3-18	10-40	20-63	20-75	20-69	5-35	4-28	4-28	4-28	5-35	5-31	5-32	51-27	5-30	5-35

Note. * = p < .05; ** p = .01. Cronbach's alpha coefficients are presented in bold across the diagonal. COMM = Hardiness subscale: commitment; CHALL = Hardiness subscale: challenge; CONT = Hardiness subscale: control; RSES = Self-esteem; CES-D = Depression; STAIS = Anxiety subscale: state; STAIT = Anxiety subscale: trait; Race-related stress: Perseverative Cognition (PPC); Race-related stress: Secondary Appraisal (PSA); Race-related stress: Anticipatory Race-Related Stress (PARRS); Race-related stress: Body Alarm Response (ABAR); CRIS1 = Racial Identity subscale: Pre-encounter Assimilation (PA); CRIS2 = Racial Identity subscale: Pre-encounter Miseducation (PM); CRIS3 = Racial Identity subscale: Pre-encounter Self-Hatred (PSH); CRIS4 = Racial Identity subscale: Immersion-Emersion Anti-White (IEAW); CRIS5 = Racial Identity subscale: Internalization Afrocentricity (IA); CRIS6 = Racial Identity subscale: Internalized Multiculturalist Inclusive (IMCI).

Table 3.
T-test and ANOVA Analyses of Demographic Characteristics of Sample

	Overall	*F*			
	n (%)	RSES	STAIS	STAIT	CESD
Gender		0.92	0.49	0.79	4.97*
Male	59(24.3)				
Female	155(74.2)				
Transgender	1(.5)				
Sexual Orientation		1.19	1.074	0.86	1.21
Lesbian	1(.5)				
Gay	5(2.8)				
Bisexual	7(3.3)				
Queer	1(.5)				
Heterosexual	198(92.5)				
Other	1(.5)				
Region of the US		0.53	0.87	0.43	0.861
Midwest	103(48.1)				
Northeast	30(14)				
Southeast	42(19.6)				
Southwest	22(10.3)				
West	17(7.9				
University Type		2.53	0.05	0.15	3.10*
PWI	162(75.7)				
HBCU	47(22)				
Other	5(2.3)				
Academic Field		0.72	0.81	0.80	1.99*
Business	13(6.1)				
Creative Arts	4(1.9)				
Education	33(15.4)				
Health Professions	12(5.6)				
Humanities	51(23.9)				
Law	6(2.8)				
Other	7(3.3)				
Social Sciences	62(29)				
STEM	26(12.1)				
Academic Year		1.13	2.11*	2.89**	2.10*
Freshman	16(7.5)				
Sophomore	21(9.8)				
Junior	15(7.0)				
Senior	53(24.8)				
Post-bachelors	8(3.7)				
Masters	36(16.8)				
Doctoral	58(27.1)				

Table 3. (continued)

	Overall	*F*			
	n (%)	RSES	STAIS	STAIT	CESD
Professional (Law, Medicine)	3(1.4)				
Other	4(1.9)				
Mother's Education		0.80	0.43	0.59	0.48
Less than High School	11(5.1)				
High School or GED	55(25.7)				
Some College/Associates	60(28)				
College Graduate	45(21)				
Some Graduate School	4(1.9)				
Graduate Degree	37(17.3)				
Didn't Know	2(.9)				
Father's Education		0.89	1.01	1.23	0.73
Less than High School	17(7.9)				
High School or GED	75(35)				
Some College/Associates	51(23.8)				
College Graduate	34(15.9)				
Some Graduate School	1(.5)				
Graduate Degree	31(14.5)				
Didn't Know	5(2.3)				
Financial Aid		3.56	1.77	0.52	1.76
Yes	160(74.8)				
No	54(25.2)				
First Generation Status		1.59	1.65	3.09*	1.80
College Level	98(45.8)				
Graduate Level	62(29)				
Doctoral Level	49(22.9)				

Note. * $p < .05$ level (2-tailed); ** $p < .01$ level (2-tailed)

Table 4

A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Hardiness Total Score and Subscale Score

(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.05	.06	
						4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.15	.10	10.44^{***}(4,208)
Hardiness (H)	-.37	.07	$-.34^{***}$			
Age	.03	.06	.03			
Year	-.52	.26	-.15			
Utype	1.85	.93	$.13^{*}$			
Step 1				.05	.06	4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.15	.10	
						10.44^{***}(4,208)
Commitment	-.51	.22	$-.19^{*}$			
Control	-.25	.18	-.11			
Challenge	-.35	.22	-.12			
Age	.03	.06	.04			
Year	-.50	.26	-.14			
Utype	1.85	.93	.12			
			Anxiety (STATE)			
Step 1				.05	.06	
						6.49^{**}(2,210)
Age	-.23	.10	$-.17^{*}$			
Year	-.58	.47	-.09			
Step 2				.31	.26	31.88^{***}(2,209)
Hardiness (H)	-.98	.11	$-.53^{***}$			
Age	-.09	.09	-.07			
Year	-.21	.41	-.04			
Step 1				.05	.06	6.49^{**}(2,210)
Age	-.23	.10	$-.17^{*}$			
Year	-.58	.47	-.10			
Step 2				.35	.29	21.94^{***}(5,207)
Commitment	-1.70	.34	$-.38^{***}$			
Control	-.20	.27	-.50			
Challenge	-1.18	.34	$-.23^{**}$			
Age	-.09	.09	-.07			
Year	-.09	.40	-.02			
			Anxiety (TRAIT)			
Step 1				.08	.09	10.19^{***}(2,210)
Age	-.21	.10	$-.18^{*}$			
Year	-.91	.43	$-.16^{*}$			

Table 4.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
Step 2				.48	.39	65.45^{***}(3,209)
Hardiness (H)	-1.14	.09	$-.66^{***}$			
Age	-.05	.07	-.04			
Year	-.48	.33	-.09			
Step 1				.08	.09	10.19^{***}(2,210)
Age	-.03	.07	-.03			
Year	-.35	.33	-.06			
Step 2				.48	.39	65.45^{***}(3,209)
Commitment	-1.96	.27	$-.47^{***}$			
Challenge	-.83	.27	$-.17^{**}$			
Control	-.64	.22	$-.17^{**}$			
Age	-.03	.07	-.03			
Year	-.35	.34	-.06			
			Self-Esteem			
Step 1				.02	.03	6.29^{**}(1,212)
Year	.56	.22	$.17^{**}$			
Step 2				.14	.11	17.62^{***}(2,211)
Hardiness (H)	.36	.07	.35			
Year	.30	.22	.09			
Step 1				.02	.03	6.29^{**}(1,212)
Year	.56	.22	$.17^{**}$			
Step 2				.13	.12	9.07^{***}(4,209)
Commitment	.52	.07	$.35^{*}$			
Control	.20	.17	.09			
Challenge	.39	.21	.14			
Year	.27	.21	.21			

Note. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5
Significant Moderator effects of Predictor, Moderation, and Outcome Variables (N = *214)*

	t	SE B	*B*	95% CI	R^2
		Depression			
Step 1					
Intern. Afrocen (IA)	4.41	.07	.33	.18, .48	
Hardiness (H)	.01	.1,10	.01	-2.16, 2.17	.25
Step 2					
(IA) x (H)	-.2.16	.07	-.14*	-.27, -.01	.27
Depression					
Step 1					
Per. Cognition (PC)	3.35	.06	.19	.08, .31	
Hardiness (H)	.20	1.18	.24	-2.10, 2.57	.22
Step 2					
(PC) x (H)	-2.22	.05	-.12*	.15	.24
		Anxiety TRAIT			
Step 1					
Body Alarm (BAR)	3.32	.13	.44	.18, .69	
Anti-White (IEAW)	3.57	1.43	5.08	2.27, 7.89	.21
Step 2					
(BAR) x (IEAW)	-2.14	.10	-.22*	-.42, -.02	.23

Note. CI = confidence interval. ** $p < .01$. * $p < .05$. IA = Internalized Afrocentricity; PC = Perseverative Cognition; BAR = Anticipatory Body Alarm Response; IEAW = Immersion-emersion Anti-White

Table 6

A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Racial Identity Subscale Scores

(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.08	.09	4.72^{***}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.14	.09	9.56^{***}(4,208)
Miseducation	.19	.07	$.18^{**}$			
Self-Hatred	.25	.07	$.22^{**}$			
Anti-White	.48	.09	$.34^{***}$			
Intern. Afrocen	.37	.08	$.30^{***}$			
Age	.03	.06	.03			
Year	-.52	.26	$-.15^{*}$			
Utype	1.85	.93	.13			
			Anxiety State			
Step 1				.05	.06	4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
Step 2				.15	.10	10.44^{***}(4,208)
Miseducation	.19	.13	.11			
Self-hatred	.43	.13	$.27^{**}$			
Anti-White	.45	.16	$.19^{**}$			
Intern. Afrocen	.43	.14	$.20^{**}$			
Age	.03	.06	$.04^{*}$			
Year	-.50	.26	-.14			
			Anxiety Trait			
Step 1				.08	.09	10.19^{***}(2,210)
Age	-.21	.10	-.18			
Year	-.91	.43	-.16			
Step 2				.10	.01	12.816^{**}(3,209)
Miseducation	.15	.12	.09			
Self-hatred	.48	.11	$.27^{***}$			
Anti-White	.59	.15	$.26^{***}$			
Intern. Afrocen	.43	.13	$.22^{**}$			
Intern. Multi	-.32	.13	$-.17^{*}$			
Age	-.24	.10	$-.19^{*}$			
Year	-.74	.43	-.13			

Table 6.
(continued)

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Self-Esteem			
Step 1				.02	.03	6.23^{**}(1,212)
Year	.56	.22	.17			
Step 2				.06	.04	7.74^{**}(2,211)
Self-hatred	-.211	.07	-.20			
Miseducation	-.23	.07	-.24			

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Miseducation = pre-encounter miseducation; Self-hatred = pre-encounter self-hatred; Anti-White = Immersion=emersion Anti-White; Intern. Afrocentricity = Internalization Afrocentricity; Intern. Multi = Internalization Multiculturalist.

Table 7

A Hierarchical Multiple Regression Analysis Predicting Depression, Anxiety (State and Trait), and Self-Esteem From Race-Related Stress Subscale Scores

(N = *214)*

	B	SE B	*B*	Adjusted R^2	Adjusted Δ R^2	Δ *F (dfs)*
			Depression			
Step 1				.05	.06	4.72^{**}(3,209)
Age	-.02	.06	-.03			
Year	-.66	.28	$-.19^{*}$			
UType	1.61	.98	.11			
Step 2				.10	.06	7.13^{***}(4,208)
Per. Cognition	.23	.06	$-.34^{***}$			
Body Alarm	.31	.08	.25			
Age	-.06	.06	.24			
Year	-.64	.27	$-.19^{*}$			
Utype	1.95	.95	$.14^{*}$			
			Anxiety (STATE)			
Step 1				.05	.06	6.49^{**}(2,210)
Age	-.23	.10	$-.17^{*}$			
Year	-.58	.47	$-.10^{*}$			
Step 2				.08	.04	10.44^{***}(4,208)
Secon. Appraisal	-.51	.22	$-.19^{*}$			
Body Alarm	.60	.14	$.28^{***}$			
Per. Cognition	.32	.11	$.20^{*}$			
Age	-.28	.10	$-.21^{*}$			
Year	-.57	.46	$-.10^{*}$			
			Anxiety (TRAIT)			
Step 1				.08	.09	10.19^{***}(2,210)
Age	-.21	.10	$-.18^{*}$			
Year	-.91	.43	$-.16^{*}$			
Step 2				.10	.01	7.826^{***}(3,209)
Secon. Appraisal	-.20	.12	-.11			
Per. Cognition	.32	.10	$.22^{**}$			
Body Alarm	.49	.13	$.24*^{**}$			
			Self-Esteem			
Step 1				.02	.03	6.29^{**}(1,212)
Year	.56	.22	.17			
Step 2				.03	.005	3.73^{*}(2,211)
Year	.53	.23	$.16^{*}$			
Body Alarm	.09	.08	.07			

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. Per. Cognition = Perseverative Cognition; Body Alarm = Anticipatory Body Alarm Response; Secon. Appraisal = Secondary Appraisal.

APPENDIX E

FIGURES

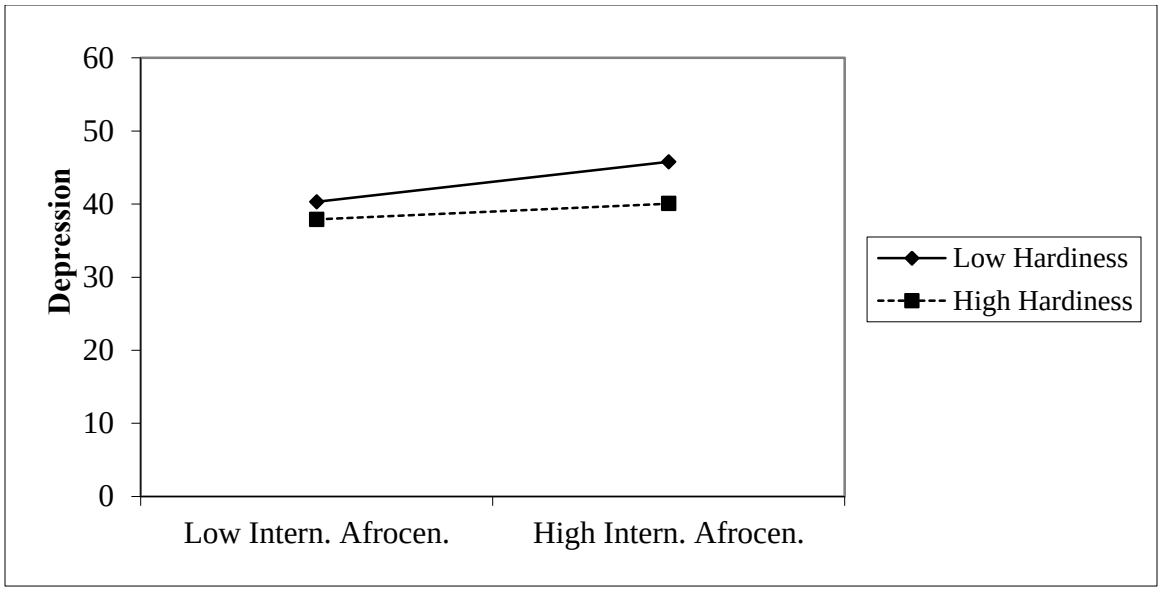

Figure 1. *Plot of Moderation of the Internalization Afrocentricity Subscale of Racial Identity—Depression Relationship by Hardiness*

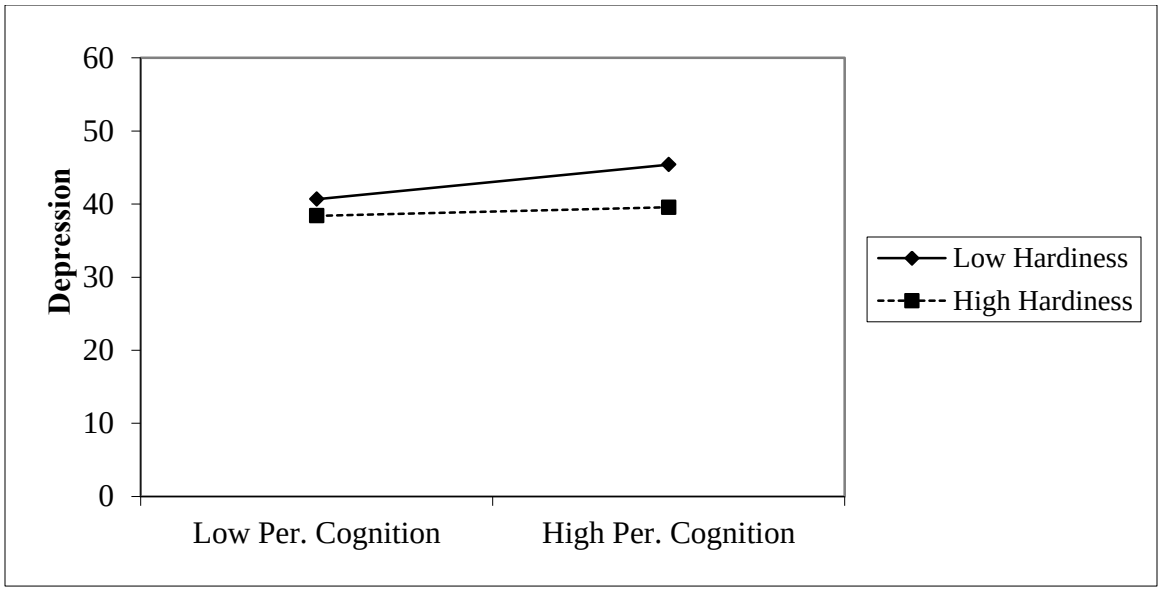

Figure 2. *Plot of Moderation of the Perseverative Cognition Subscale of Race-related Stress—Depression Relationship by Hardiness.*

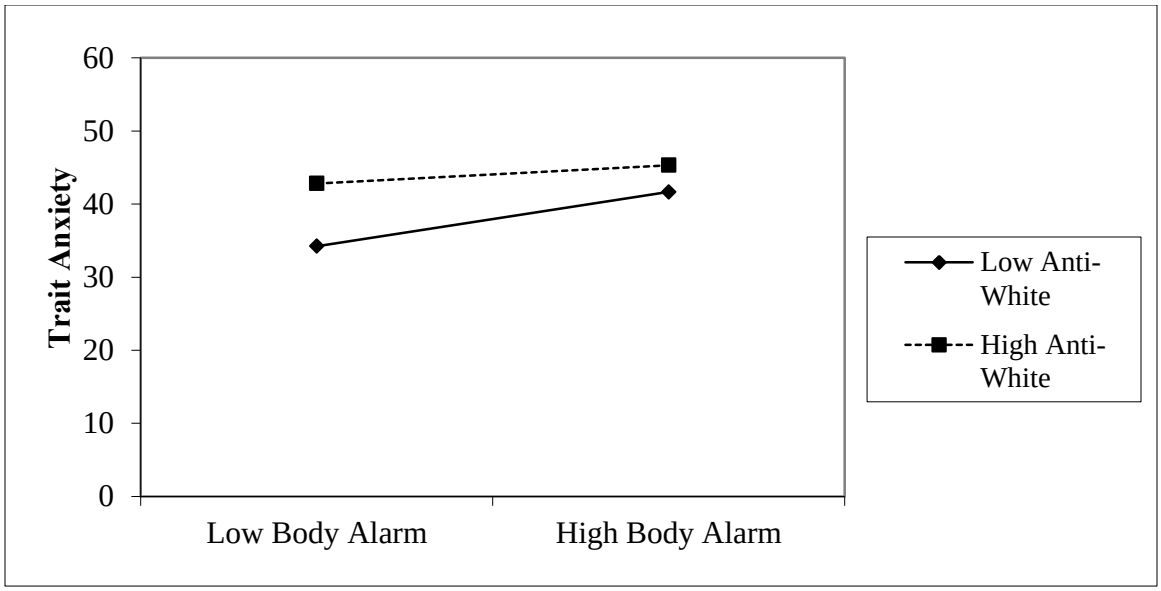

Figure 3. *Plot of Moderation of the Anticipatory Body Alarm Response Subscale of Race-Related Stress—Trait Anxiety Relationship by Immersion-Emersion Anti-White Subscale of Racial Identity.*

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VITA

Jasmine Tilghman was born in Saint Louis, Missouri to Stanley and Jocelyn Tilghman. Jasmine is the 3rd born child of two older brothers and one younger sister. She was raised as a Christian in a predominately White community in the suburbs of Saint Peters, Missouri. After graduating from high school, Jasmine attended the University of Missouri-Columbia (MU) majoring in psychology and minoring in human development and family studies. During her undergraduate years, she became a member of Delta Sigma Theta Sorority, Inc., a member of QEBH secret honor society, a summer welcome leader, and honored with being one of Mizzou's top 39 seniors. Jasmine went on to complete her masters in elementary school counseling at MU and worked as a graduate assistant for A Way With Words & Numbers tutoring program. As a graduate student, she was able to be a part of research teams with graduate faculty and begin her clinical work with elementary students. However, Jasmine realized she would need to earn a PhD to work with a wider range of people and societal issues.

Following her masters degree, Jasmine was admitted as a PhD student in counseling psychology at MU. She was able to continue her clinical work as well as gain more experience in teaching and research. Some of Jasmine's research has been presented at national conferences. Out of these experiences, Jasmine was able to hone her research interests to include Multicultural Psychology and Strength-based research topics, specifically protective factors of Black college students. To date, Jasmine has

acquired hundreds of clinical hours, three publications, and has taught at least five courses to both graduate and undergraduate students. She has also been able to serve as the Assistant Director to the A Way With Words & Numbers tutoring program as well as the Coalition for Cultural Competence. Further, she was able to work with a diverse group of students and professionals through organizations, mentorship, and outreach opportunities. Jasmine defended her dissertation titled, *Examining the Relationships Between Hardiness, Race-Related Stress, and Racial Identity on Psychological Health Outcomes Among Black College Students*, on June 13th, 2014. Creatively, Jasmine was also able to develop as a songwriter and singer. It was through God and music that she was able to get through the tougher times in her doctoral journey. Currently, Jasmine is completing an internship at Colorado State University and has accepted a Postdoctoral position at the University of California-San Diego upon graduating with her PhD in May 2015.