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**SOMEBODY TO LEAN ON: RELATIONSHIPS BETWEEN SOCIAL SUPPORT
NETWORKS AND RACIAL FACTORS AMONG AFRICAN AMERICAN
STUDENTS ADJUSTING TO A PREDOMINANTLY WHITE INSTITUTION**

A Dissertation in

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by

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ABSTRACT

Racial factors have been shown to play a role in the adjustment of African American college students attending predominantly White institutions (Ancis, Sedlacek, & Mohr, 2000; Davis et al., 2004; Jones, 2004; Solórzano, Ceja, & Yosso, 2000; Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). Social support also appears to be an important factor in the successful adjustment of African American students at PWIs (Bean, Bush, et al., 2003; Cohen & Wills, 1985; Guiffrida, 2003, 2004, 2005; Harris & Molock, 2000; Hinderlie & Kenny, 2002; Kimbrough et al., 1996; Lin, Dean, & Ensel, 1986; Mallinckrodt, 1988; Utsey et al., 2000). Utilizing a longitudinal design, the present study investigated how race-related factors such as racial identity, racial socialization, and racial climate influenced the college adjustment experience of African American students as well as how these factors influenced the size and racial composition of the social support networks. It was hypothesized that social support may play a mediating role in the relationship between these racial factors and college adjustment and that these relationships would vary by class status (freshman vs junior transfer students). Results were mixed and indicated that current racial climate and private regard were concurrently, but not prospectively, associated with overall college and institutional adjustment. This effect was moderated by class status. However, the size and racial composition of social support providers was not predicted by any racial factors nor did it predict college adjustment. Limitations and broad implications of findings are discussed.

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INTRODUCTION

Empirical research in a number of disciplines including higher education, educational psychology, developmental psychology, community psychology, counseling psychology, and student development strongly supports the notion that the transition to college is not the same for all students (Cabrera & Nora, 1994; Gloria, Robinson Kurpius, Hamilton, & Willson, 1999; Museus, 2008; Paul & Brier, 2001; Tinto, 1993). When attending predominantly White institutions (PWIs), minority students report more negative experiences than White students (PWIs; Cabrera, Nora, Terenzini, Pascarella, & Hagedorn, 1999; Fries-Britt & Turner, 2002; Gonzalez, 2003; Lewis, Chesler, & Forman, 2000; Nelson-Laird et al., 2007; Pascarella & Terenzini, 2005; Rankin & Reason, 2005). Research examining the experiences of African American¹ students has found that social and cultural issues are more pronounced when they attend predominantly White institutions (Bonner & Bailey, 2006; Holmes, Ebbers, Robinson, & Mugenda, 2007; Smedley, Myers, & Harrell, 1993). More specifically, the adjustment to college is particularly stressful for African American students when the predominant racial culture of the college environment differs from their own (Ancis, Sedlacek, & Mohr, 2000; Prelow, Mosher, & Bowman, 2006; Mounts, 2004; Sedlacek, 1999). For these students, several factors associated with their race seem (i.e. racial identity, racial campus climate, and racial socialization) seem to play a critical role in their college adjustment experience and significantly influence their academic performance as well as retention and graduation rates (Fries-Britt & Turner, 2001; Greer & Chwalisz, 2007).

Also critical in the college adjustment for African American students is the role of social support. Family members are vital resources that can help African American college students perform better academically and to persist in higher education institutions (Harris & Molock,

¹ Throughout this dissertation, the terms African American and Black are used interchangeably.

2000; Guiffrida, 2005; Nora & Cabrera, 1996). Since family members may not be able to fully relate to students' higher educational experiences, it may also be especially critical for these students to have an effective peer support group. Peers may provide valuable assistance to African American students when navigating the challenges (e.g., negative racial environment) associated with attending a predominantly White institution (PWI; Guiffrida, 2003, 2004; Kimbrough, Molock, & Walton, 1996; Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Support from racially similar peers may be especially crucial for African American college students because same-race peer support can foster the belief that they can succeed in higher education institutions (Gloria et al., 1999; Guiffrida, 2003), thus lessening feelings of isolation.

The present study examined the associations between several racial factors, African American students' social support networks, and indices of adjustment to college at a PWI. Specifically, I examined how race-related factors such as racial identity, racial socialization, and racial climate influenced the college adjustment experience of African American students as well as how these factors influenced the total size of and the number of African Americans in these students' social support networks. Previous work has linked different racial factors and social support to adjustment independently (Harris & Molock, 2000; Hinderlie & Kenny, 2002; Tao, Dong, Pratt, Hunsberger, & Pancer, 2000), but has not examined all these variables together in one study or how these variable may influence the size of social support networks. I hypothesized that social support as represented by the size of social support networks might play a mediating role in the relationship between the racial factors and college adjustment. Furthermore, including multiple racial factors within the same study allowed for the examination of the relative importance or weight of these different factors in the transition to college for African American students.

Below I review the literature on the general college transition and adjustment experience, and then discuss the specific concerns and experiences of African American students. Next, the concept of social support networks and its relationship to adjustment is examined. This is followed by a review of the racial factors focusing on racial campus climate, racial identity, and racial socialization. These sections will specifically discuss how each may influence the college adjustment experience of African American students and their relationship with social support networks. Lastly, I conclude the introduction with a discussion of how these variables are brought together within this study to specifically answer the questions of interest.

The Transition to College

The Greek philosopher Heraclitus of Ephesos described life as an experience where “everything changes and nothing stands still” (Sedley, 2003). His observation encapsulates a truism that transitions are a common aspect of human development. Late adolescence, in particular, encompasses a broad range of transitions that prepare an individual for adulthood (Pratt et al., 2000; Tao et al., 2000). Graduating from high school and entering college is a major transition for many late adolescents. Greater numbers of individuals have made the transition to college in the past century, with more than 68% of 2005 high school graduates entering into some form of post-secondary education; a substantial change from the less than 15% of high school graduates who were attending college in the 1930s (Steinberg, 2005).

College adjustment refers to students’ ability to adapt successfully to the expectations and demands of college that are often accompanied by multiple significant changes and challenges (Woldoff, Wiggins & Washington, 2011). These changes often extend beyond just the greater academic demands, increased autonomy, and lower degree of academic structure that characterizes life at many colleges and the transition to college (Credé & Niehorster, 2011).

First-year students are required to navigate a new social environment, adapt to new roles and responsibilities (e.g., managing their own finances), and cope with the separation from friends and family. Additionally, there may be a decrease in supervision and protection from parents and teachers, changes in daily routines, and different challenges in academics, in social relationships, and in other areas demanded by a new environment (Pancer, Hunsberger, Pratt, & Alisat, 2000).

The experience of leaving home for college can also be an emotionally fraught time. Larose and Boivin (1998) found that declines in perceived social support were associated with increased anxiety and loneliness for students who left home. However, they found no change for students who lived at home during their first-year. Other work shows that perceived social support is also positively correlated with academic achievement in college students (Robbins et al., 2004). Recent research suggests that peer social networks in particular may have a strong effect on the adjustment of college students. A study conducted by Buote, et al. (2007) at five Canadian universities surveying 702 students found a significant positive relationship between quality of relationships with new friends and college adjustment for freshmen. Furthermore, their results were particularly true for students living in dormitories rather than off-campus. The proceeding work highlights the importance of social support when students go away to college.

Another increasingly important transition in college occurs for transfer students who come to four-year colleges or universities from community colleges or branch campuses, typically in their junior year. Statistics indicate that approximately 60% of all undergraduate students attend multiple institutions throughout their collegiate careers (National Center for Educational Statistics, 2002). The growing population of transfer students represents approximately 40 percent of the nation's undergraduate students and as such significantly contributes to the whole student populations for many four-year institutions (National Survey of

Student Engagement, 2003). Transfer students often encounter academic, social and psychological challenges similar to traditional freshmen as they make the transition from community colleges to four-year institutions (Dowd, 2003; Laanan, 2007; Townsend & Wilson, 2006). However, as Jacob, Lauren, Miller, & Nadler (2004) argue, these students are often disadvantaged when compared to the resources provided to traditional freshmen. Additional research suggests that one of the primary challenges for transfer students often comes from having to adjust to a new campus culture that is different than the community college from which they previously attended in regards to size, location, difficulty of curriculum, and competition among students (Laanan, 2001; Townsend, 1995).

The transition to college encompasses different domains of functioning, including academic, social, and emotional adjustment (Anglin & Wade, 2007). Despite the relatively complex nature of the college environment to which students must adapt, there is currently substantial agreement among educational researchers as to the structure of the broad adjustment to college (Credé & Niehorster, 2011). Much of the research in this domain has relied on the theoretical taxonomy developed by Baker and Siryk (1984). They describe the transition to university as a multifaceted process that requires adjustment to a variety of demands. These authors based their taxonomy on a review of the then extant college adjustment literature and classified students' adjustment to college as falling into four broad categories: academic adjustment, social adjustment, personal–emotional adjustment, and institutional adjustment.

Baker and Siryk argued that adjustment to college is characterized by all four of these types of adjustment. They described academic adjustment as the degree to which students have adapted to academic demands as reflected in their attitudes towards their course of study, their engagement with material, and the adequacy of their studying and academic efforts. Social

adjustment reflects the degree to which students have integrated themselves into the social structures of the university residencies and the broader university, are taking part in campus activities, meeting new people and making friends, as opposed to experiencing difficulties with loneliness or missing of family. Personal–emotional adjustment reflects the degree to which students are experiencing stress, anxiety, and/or physical reactions (e.g., sleeplessness) to the demands of the college environment. Finally, institutional adjustment refers specifically to the degree to which students identify with and have become emotionally attached to the college community.

Baker and Siryk (1984) developed a self-report measure based on their taxonomy called the Student Adaptation to College Questionnaire (SACQ). The SACQ was intended as a tool for the measurement, prediction, and facilitation of student adjustment in college. The measure had four subscales that each corresponded to one of the academic, social, personal-emotional adjustment, and institutional adjustment categories. In an unpublished manuscript providing an overview of the empirical work using the SACQ, Baker (2002) identified the two main determinants of adjustment to college as being person-specific characteristics and environment-specific aspects. Person-specific characteristics were described as individual differences or what students brought with them to the process of adjusting to college. These individual differences included group identity categories such as gender, race/ethnicity, and socio-economic status. Environmental factors were defined as being external to the student and included self-reported perceptions and interpretations of their environment and environmental events, interpersonal experiences, social support from friends, amount of prior interracial experience, and romantic relationships. Baker hypothesized that individual and environmental variances would each be associated with differences in the quality or effectiveness of adjustment among students.

Baker's work suggests that individual *and* environmental factors are critical to the college adjustment process. This parallels research in the developmental and multicultural psychology literatures exploring life transitions that highlight the interaction between environmental and individual factors and the consequences of a lack of fit in these areas. Developmental theorist Uri Bronfenbrenner (1979) advanced his ecological systems model of development, which posited that people were not merely blank slates molded by their environment, but were in fact active participants who interacted with their environmental settings within and between the various systems. In this model, transitions between environmental contexts are viewed as critical aspects of individual development where changes in role or challenges in new settings can contribute to growth. Bronfenbrenner (1979) believed that incompatibilities during these transitions were associated with negative psychological and emotional consequences. Other authors have theorized that new environmental contexts that significantly differ from the previous one (i.e. physically, politically, socially, and culturally) may cast the individual in an unfamiliar role as a stranger, outsider, or minority (Berry, 1997). Researchers have generally found that the greater the inconsistency between the individual and their environmental contexts (i.e. person-environment fit), the more difficult their challenges in adjusting may be (Magnusson & Stattin 1998; Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Tseng & Yoshikawa, 2008).

Transition to college for African-Americans.

The higher education literature has long established that for African Americans students the adjustment to college can be particularly stressful when incongruities exist between their racial heritage and the campus environment (Ancis et al., 2000; Berger & Lyon, 2005; Davis 1994; Mounts, 2004; Nora & Cabrera, 1996; Prelow, Mosher, & Bowman, 2006; Sedlacek, 1999; Solórzano et al., 2000; Turner & Fries-Britt, 2002). The level of person-environment fit

may be represented by the perceived match between the cultural values of the college and those of the individual student – an idea that some authors have termed cultural congruence (Gloria et al., 1999). Cultural congruence represents students' perceptions of the university environment, their own cultural fit within this environment, and any stress created by the environmental context (Gloria & Pope-Davis, 1997; Gloria & Robinson Kurpius, 1996). The problems due to the cultural incompatibilities faced by African American students during the college adjustment process became especially apparent when they began attending predominantly White institutions (PWIs) in increasing numbers after the gains of the Civil Rights movements in the 1960s (Allen, 1988; Brown & Yates, 2005). With this surge in attendance, many African American students experienced difficulty integrating academically and socially into their new environment and often articulated feelings of loneliness and non-acceptance because of their race (D'Augelli & Hershberger, 1993; Feagin, 1992; Feagin & Sikes, 1995; James, 1998; Nettles, 1988; Pascarella & Terenzini, 2005).

Smedley, Myers, and Harrell (1993) found that minority students, especially African American students, faced unique stressors at PWIs that contributed to their perceiving the environment as a hostile place characterized by racist experiences and perceptions of negative expectations from White peers. The authors stated that such stressors were directly related to African American racial status, and could undermine their social and academic integration at PWIs (Smedley et al., 1993). These racially relevant stressors were organized under the rubric of minority status stress and have been found to negatively affect the academic functioning and psychological well-being of African-American students, even after controlling for typical student stressors associated with college life (Smedley et al., 1993). Greer and Chwalisz (2007) assessed minority status stress among 203 African American undergraduate students attending both

historically Black college/university (HBCUs) and PWIs. Overall, they found that there were significantly higher levels of minority status stress among students who attended PWIs. These stressors were race-related difficulties associated with campus climate, interpersonal issues, and within-group issues suggesting that social difficulties during the transition to college are particularly difficult for this population.

Research has long shown that social and environmental factors may be especially pronounced for African American students at PWIs. A two-year longitudinal study conducted by Astin and Cross (1981) examined the impact of race, institutional type, and financial access on college persistence of 16,657 Black and White students enrolled at various colleges and universities. For the Black student participants, social involvement in campus life, and racial composition of the university predicted persistence, reinforcing the notion that both individual and environment level factors are important for success. Another study by Gloria et al. (1999) investigating factors that enhanced college retention rates among African Americans students showed that social support (e.g., family, friends, mentors) was positively related to persistence. In addition, those who felt comfortable within the university environment reported having a positive cultural connection, which, in turn, related to higher levels of self-esteem.

While adjustment to college may be a continual process, research suggests that the most critical period or stage of vulnerability for African American student attrition continues to be the first year of college, regardless of institution type (Cheatham, Shelton, & Ray, 1987). More than 50% of all African American students who withdraw from college do so during their freshman year (Consortium for Student Retention Data Exchange, 1999). Moreover, additional statistics from the U.S. Department of Education (2011) show that African American students enrolled at a 4-year institution had the largest dropout rate when compared to other racial groups (28.2%

compared to 25.7%, 19.4%, 18.5%, and 14.8% for Hispanic, White, American Indian, as well as Alaska Native and Asian-Pacific Islander, respectively). These numbers are in stark contrast to the substantial gains in educational attainment African Americans have made in the 60 years or so since the U.S. Supreme Court's landmark ruling *Brown v. Board of Education* in 1954. Approximately 80% of all African Americans age 25 and older have attained a high school degree (only 5% below the rate of White Americans) and 44.7% attended college compared to 52.9% of White Americans (U.S. Census Bureau, 2004). This discrepancy implies that there is something about the transition to college for African American students that influences their ability to persist at 4-year institutions, which may be especially evident at PWIs.

Another group of African American students who may experience particular difficulties adjusting to a PWI are students transferring in their junior year from a branch campus or community college to a larger institution. Less is known about how African American junior transfer students may cope with the transition to a PWI as the majority of studies provide general conclusions based on minority transfer students as a whole and often fail to explore one ethnic group exclusively (Flaga, 2006). Kodama (2002) found that these students often have fewer sources of on-campus support, which may contribute to feelings of discomfort and marginality. Other studies investigating the adjustment of minority transfer students have found their experiences to be primarily negative with these students more likely to report feeling overwhelmed, intimidated, and, alienated (Laanan, 2000).

Wawrzynski, Kish, Balón, & Sedlacek (1999) surveyed 2,492 incoming transfer students (14 percent of whom were African American). Study results indicated that these students arrived on campus with the expectation that they would successfully become a part of the larger university community through interactions with faculty, staff and their peers both inside and

outside of the classroom – essentially building an on campus social support network. This research suggests that factors such as sense of belonging, support networks, and the ability to navigate a new collegiate system may contribute to the persistence and success of this particular student population. The work discussed above highlights the importance of examining the different types of college transition experience of African American students.

Social Support Networks

Researchers have observed that transitions to new environments often mean the reconstruction of relations between the person and the environment (Fisher, Frazer, & Murray, 1986). The move to a new environment during the transition to college can also disrupt established social networks of friendships and families (Schlossberg, 1981; Shaver, Furman, & Buhrmester, 1985). For many students, heading off to college marks the first time that they have lived away from home and from the only support system they may have known to that point (Rice, FitzGerald, Whaley, & Gibbs 1995). The psychological impacts of this separation may be particularly pronounced for students in their first or freshman year. Findings suggest that many first-year students report feelings of loneliness and homesickness due to challenges associated with adjusting to college (Berzonsky & Kuk, 2000; Pancer et al., 2000).

Prior findings support the concept that social support from peers and parents is of considerable importance during a student's transition and adjustment to college (Aspinwall & Taylor, 1992; Lamothe et al., 1995; Tao et al., 2000). Social support is defined as the psychological and material resources received through formal or informal contacts with individuals and groups (Cohen, 2004; Constantine, Robinson, Wilton, & Caldwell, 2002). Studies have shown that social support can serve as a defense from the negative psychological consequences (i.e. anxiety, depression, and other feelings of distress) that stressful life events

such as the transition to college often bring (Alloway & Bebbington, 1987; Cohen & Wills, 1985). This buffering hypothesis posits that social support can alleviate distress by tempering the psychological and physiological reactions to stress (Cohen & Willis, 1985). Social support in this instance is viewed as a source of coping wherein individuals utilize others' support as a tool to overcome the distress and bolster their own perceived ability to cope with the stressful event.

At predominantly White institutions (PWIs) in particular, social support may be an especially critical factor in the adjustment of African American students that provides protection against feelings of loneliness and alienation (Hinderlie & Kenny, 2002; Mallinckrodt, 1988). Family members in particular have been shown to be vital to helping African American college students perform better academically and to persist to graduation (Harris & Molock, 2000). Individuals who receive parental support and encouragement tend to have better academic experiences. Guiffrida (2005) found in a qualitative study of 99 current and former African American students at a PWI, that high-achieving students perceived their families as among their most important assets at college. Another study by Hinderlie & Kenny (2002) showed that parental attachment (both maternal and paternal) contributed significantly to the variance in college adjustment beyond solely on-campus support. Other studies show that, for African American students, parental support may help to alleviate anxiety and depression (Zimmerman, Ramirez-Valles, Zappert, & Maton, 2000) and contribute to academic achievement (Bean, Bush, McKenry, & Wilson, 2003). Additionally, in a study comparing African American and White college students, Jung and Khalsa (1989) found that African American students who felt supported by their family reported better emotional adjustment.

However, there may also be negative effects of this family support. Guiffrida (2005) found that African American students who left college or were struggling academically attributed

this to family obligations. These students identified having to lend emotional and financial support to their families and their guilt for taking away from scarce family resources as a significant liability to their college experiences. Another study found that if students feel their college attendance is causing a strain on their family or feel disloyal about being away from home, these family ties may inhibit adjustment (Arnold, 1993). Additionally, first-generation college students' families may not be able to relate to the college student experience making it difficult for these students to rely on the family for support (Kenny & Perez, 1996). Other studies cast further doubt on the beneficial role of the family social support. For example, Boulter (2002) did not find a significant relationship between family support and academic adjustment among a sample of diverse college students (81% White, 14% African American, 5% other ethnic groups). However these results may have been significantly influenced by the high concentration of White students in this study's sample.

In addition to receiving support from their family members, having an effective peer support network provides critical reinforcement to African American students. On-campus peers can offer vital assistance in navigating the challenges and stressors associated with attending a PWI as the families of African American students may not fully understand their specific higher educational experiences (Guiffrida, 2005; Kimbrough et al., 1996; Utsey et al., 2000). Palmer, Maramba, & Holmes (2011) explored the factors promoting the academic success of minority students at a research intensive PWI using qualitative methods. The 19 study participants (11 of whom were African American) reported that their peers encouraged them to stay motivated in school during times they experienced academic and social difficulties and that peer academic support eventually led to peer social support. African American students attending PWI's often seek out same-race friends and groups as a means to alleviate feelings of self-doubt, provide

security, counteract stigmas, and to participate in culturally relevant activities. Support from racially similar peers can help African American college students succeed at PWIs by helping them feel more comfortable on campus, thus lessening feelings of isolation or not belonging (Gloria et al., 1999; Guiffrida, 2003). Moreover, research indicates that establishing a social network of same-race friends can decrease African American students' discomfort on predominantly White college campuses (Kimbrough et al., 1996). Peers may be more effective resources because they are often experiencing the same stressors concurrently. DeFour and Hirsch (1990) reported that African American students who had out-of-class contact with other African American students were less likely to consider dropping out of school, further reiterating the importance of on-campus, same-race peer social support network .

Tinto (1993) argued that social support allowed Black students to become socially integrated and involved in the academic environment leading to better persistence at PWIs. According to Tinto, these students dropped out of school or struggled academically because of unsuccessful integration into the academic and social fabric of their university. Therefore, it seems that an essential part of the college experience for African American students is receiving support within the college environment. Support from student groups and other campus resources are signs that students are integrated into the college community and are thereby less likely to leave college (Fischer, 2007). Tinto contended that unlike many White students, whose social integration into the college environment occurs largely through informal networks with peers, African American students at PWIs became socially integrated mostly through more formal associations and social networks, such as racial minority student organizations. This hypothesis is supported by research that indicates that involvement in racial minority student organizations can assist these students in bridging the cultural gap that exists between their home

environments and the environments at PWIs (Padilla, Trevino, Gonzalez, & Trevino, 1997). Involvement in African American student organizations may provide enough support and security to help students better adjust to the broader campus community.

The importance of peer support networks for African American students is highlighted in recent work by Baker & Robnett (2012) examining race, social support, and college student retention in a sample of 1684 White, Black, Latino, and Asian undergraduate students. Although, the sample's Black and Latino students had similar pre-college characteristics (e.g., level of academic preparedness), they had different retention rates with Black students more likely to stay enrolled in their program. Based on the findings, the researchers concluded that regardless of differences in pre-college characteristics, experiences that occurred while enrolled in college might be more important and impactful on the success of minority students. For Black students specifically, their findings suggested that increased social support from connections with others on campus might help to explain these students' increased retention.

Empirical work suggests that it is not only the composition of an individual's social support network that aids in coping with life stressors, but also the size of their social support base or network (Cohen & Wills, 1985; Lin, Dean, & Ensel, 1986). Social networks are specific set of linkages among a defined set of persons (Mitchell & Trickett, 1980). Individuals can be the focal point of a number of partially overlapping social networks, each of which may be in a different social context or purpose (Milardo, 1988). Previous work suggests that social networks have a layered structure, with each group increasing in size but decreasing in the intensity of the relationship (Hill & Dunbar, 2003; Zhou, Sornette, Hill, & Dunbar 2005). Dunbar and Spoors (1995) found that the two innermost subgroups consist of a support circle that includes best

friends or intimates while the sympathy group is made up of the primary circle of friends (Buys & Larsen, 1979).

Strong social support networks of family and peers have been associated with greater persistence in college as well as overall higher grade point average for ethnic minority first-generation college students. (Dennis, Phinney, & Chuateco, 2005). Individuals who possess a greater number of relationships with friends, family members, coworkers, and neighbors report less distress and greater positive affect, regardless of their levels of stress, than those who possess fewer of these relationships (Cohen & Wills, 1985). This principle also seems to apply during the college transition process with Hays and Oxley (1986) finding that the more peers that freshmen have in their social network, the better their adjustment to college. Constantine, Wilton, & Caldwell (2003) and Chiang, Hunter, & Yeh (2004) suggest that relying on informal networks to cope with race related distress as opposed to formal mental health counseling may be a culture-specific, indigenous style of coping for Black students.

This research highlights the importance of perceived social support as well as the size of social support networks during stressful life changes such as the transition to college. Perceived social support has been shown to act as a protective buffer against life stressors while social network size also assists with coping with negative experiences. Both of these may be especially important for African American students as they adjust to a predominantly White institution of higher learning. Furthermore, it may be critical for them to maintain social networks that consist of both family support and same-peer relationships in order to have a successful transition to college.

Racial Climate

For African American students at predominantly White institutions (PWIs), a racial factor that may play a crucial role in their adjustment to college may be the campus racial climate (Cuyjet, 1998; Ellis, 2001; Swim et al., 2003; Yosso, Parker, Solórzano, & Lynn, 2004). The climate of an institution can be conceptualized as a psychologically meaningful representation of the institution's environment (Pargament, Silverman, Johnson, Echemendia, & Snyder, 1983). It can also represent the observable practices, routines, and behaviors that act to socialize and perpetuate cultural beliefs and values to individuals in a setting (Guion, 1973). As such, the racial environment on a college campus can be considered to be reflective of the level of acceptance or rejection of racial diversity in a given institution (Chavous, 2005; Reid & Radhakrishnan, 2003; Solórzano et al., 2000). The campus racial environment is essentially the overall racial atmosphere of the college campus and describes how individuals experience and perceive the racial environment at the school (Locks, Hurtado, Bowman, & Oseguera, 2008).

Students of color seem to be more highly attuned to the campus racial environment than their White counterparts. White students are more likely to perceive the racial climate as positive, whereas students of color are more likely to perceive the racial climate as negative (Ancis et al., 2000; Navarro, Worthington, Hart, & Khairallah, 2009; Rankin & Reason, 2005). These differences in perception of racial climate extend to a sense of support as well. Loo and Rolison (1986) for instance, found that minority students and White students were in agreement regarding the existence of sociocultural difficulties among students, but that White students perceived that there were greater levels of university support for minorities than the ethnic minority students perceived. Another study by Ancis et al. (2000) compared students' perceptions of campus climate according to racial/ethnic group membership. In general, White

students reported greater overall satisfaction with the university as well as higher levels of respect from faculty and other students than their African American students. White students reported less tension and fewer expectations to conform. Conversely, African American students in the study reported feeling less institutional support as characterized by incidents of overt discrimination, including higher levels of interracial tensions in residence halls, more racial conflicts on campus, and greater feelings of separation and isolation than other racial groups.

Negative perceptions of the racial climate have consistently been related to overall college adjustment among African Americans. Fischer (2007) found that minority students who had a negative perception of the campus racial climate reported being less satisfied with their college experience and were more likely to leave college. Cabrera et al. (1999) explored students' perceptions and the impact of campus racial climate on the adjustment of African American students compared to White college students. They found that perceptions of a prejudiced environment negatively influenced African American students' decision to persist. The authors concluded that exposure to a campus climate of prejudice and intolerance decreased these students' commitment to the institution and decisions to persist. Perceived racial climate has also been shown to directly influence African American college students' perceptions about their academic achievement. Studies consistently show that these students believe that they received lower grades because of unfair treatment due to their race (Allen, 1988; Engber, 2004; Feagin & Sikes, 1994; Holmes, Sullivan, & Letzring, T.D., 2002; Nettles, 1988; Suarez-Blacazar, Orellana-Damacela, Portillo, Rowan & Andrews-Guillen, 2003). Solórzano et al. (2000) performed a small qualitative study on African American students enrolled at three PWIs to gather information regarding their experience of racial dynamics on campus. Findings showed that these students felt racial tension both inside and outside of the classroom setting, perceived

racial separateness among the student body, believed that they were negatively stereotyped by White faculty and peers, and perceived negative stereotyping regarding their academic abilities. As a result, many students performed poorly academically and/or withdrew from the institution.

Another possible aspect of the racial climate that may be important in the college adjustment process of African American students at PWIs is prior racial climates and prior interracial experience. For example, students from more racially diverse neighborhoods, high schools, and social networks typically display better adjustment to college life than students from majority African Americans environments (Adan & Felner, 1995; Chavous et al., 2002; Davis, 1994; Massey & Fischer, 2006; Sherman, Giles, & Williams-Green, 1994). Graham, Baker, and Wapner (1985) found that although the racial and ethnic composition of one's home neighborhood was influential in terms of African American college students' adjustment to life at PWIs, it was not as influential as the diversity of the secondary school environment. Students from more racially homogeneous high schools have reported college as requiring greater adjustment than students from more racially heterogeneous environments (Sherman et al., 1994). Perhaps, this incongruence with their previous environment may influence students' perceptions of their new college environments and influence how well they adjust to the new environments. This research highlights the importance of examining the role of both current and previous racial climate in the well-being of African Americans at a PWI.

Although there is a scarcity of empirical work regarding a direct relationship between racial climate and African American students' level of social support or the strength of their social support networks, it seems likely that the two are associated. African American students often report experiencing a lack of support or feeling unwelcomed in their new environment (Allen, 1992; Pascarella, Edison, Nora, Hagedorn & Terenzini, 1996; Smedley et al., 1993;

Schwitzer, Griffin, Ancis & Thomas, 1999). Researchers argue that because African American students do not feel as though they receive support from the institution they often perform poorly and fail to persist (Nettles, 1988; Nottingham, Rosen & Parks, 1992; Tracey & Sedlacek, 1985). Comparative analyses of the experiences of African American students attending historically Black colleges and universities (HBCUs) and PWIs reveal that students at PWIs generally report negative campus race relations alongside less perceived social support, and lowered academic achievement (Allen, 1992; Nettles, 1991).

Gloria et al. (1999) found that higher levels of social support and more comfort in the university environment was associated with more positive academic persistence for African American undergraduate students in a predominantly White university. Specifically, the authors argued that the African American undergraduates in their study had a support network of friends and family that buffered potentially negative academic experiences at a predominantly White university. These findings substantiate earlier findings that underscore the importance of social support systems for African American students (DeFour & Hirsch, 1990; Griffin, 1992). Other work also suggests that establishing social support networks of friends and academic mentors can decrease African American students' discomfort on predominantly White college campuses (Kimbrough, Molock, & Walton, 1996). These studies provide strong indirect evidence for a relationship between racial climate and social support networks.

Racial Identity

Another important racial factor may be racial identity, which is one of the most widely studied racial concepts in the multicultural and counseling psychology literatures. It has been defined as the importance a particular individual places on his or her racial heritage and the degree to which they perceive themselves to be a part of their racial group (Helms, 1990). That

said, the construct of race in the United States is complex and difficult to define. Given that a biological foundation for race has yet to be identified, many contemporary authors argue that race is best understood as a socially constructed set of beliefs about a particular group where the categories are assumed to be real and tangible (Hattery & Smith, 2007; Hilliard, 2001; Landrine & Klonoff, 1996). Ethnic identity is a similar construct to racial identity, and there are some researchers who do not distinguish between the constructs, using the terms and the measurement instruments interchangeably. Ethnic identity has been defined as an individual's identification with a group whose members are thought to have a common origin and share segments of a common culture and who participate in shared cultural activities (Yinger, 1976). Ethnic identity may help individuals consciously or unconsciously identify with those with whom they feel a common bond because of similar traditions, behaviors, values, and beliefs (Ott, 1989). Although the development of both racial and ethnic identity have been linked to adjustment in school for adolescents with minority backgrounds (Kiang, Witkow, Baldelomar, & Fuligni, 2010), racial identity will be the focus in this study given its consistent use in the literature in relation to the college adjustment of African American students.

Several racial identity models have been used extensively in the literature, one of the first and most predominant being the Nigrescence model (Cross, 1971). This was initially described as a "resocialization experience" in which a healthy Black individual progressed from a non-Afrocentric to an Afrocentric and ultimately to a multicultural identity in stages. Cross and several colleagues later revised and expanded the nigrescence theory to reflect more fluid developmental typologies instead of fixed stages of racial identity (Vandiver, Fhagen-Smith, Cross, Worrell, & Cokley, 2001). Studies have demonstrated that the earlier stages of the Cross model are correlated with reduced academic achievement for college students (Sandoval, Gutkin,

& Naumann, 1997). In terms of social adjustment on campus in a study utilizing Cross' Nigrescence model, Parker and Flowers (2003) found that African American students with higher levels of racial identity (defined as being at the internalization stage of the Cross model which is characterized by security in their Black identity), experienced greater levels of campus connectedness while those in lower stages of racial identity were less likely to perceive the campus as welcoming, friendly, and inclusive.

A more recently developed racial identity model is the Multidimensional Model of Racial Identity (MMRI). Developed by Sellers, Smith, Shelton, Rowley, & Chavous (1998b), the MMRI frames racial identity as being unique to each individual within the group. The MMRI examines the heterogeneity of Black identity unlike Cross's model which views Black identity as a developmental process that occurs similarly across the racial group (Vandiver et al., 2001). The MMRI considers the distinctive qualities of each individual based in part on the significance race plays in their lives. Because each individual assigns different meanings to their racial identity, it is difficult to collectively place everyone into one category (Hudson Banks & Kohn-Wood, 2007). Rather, Sellers et al.'s (1998b) development of the MMRI suggests that individuals can occupy more than one dimension at once. The MMRI aims to describe the nature of racial identity in African Americans qualitatively and structurally by including individuals' perceptions of both the meaning and significance of their race.

Sellers et al. (1998b) described the MMRI as dividing racial identity into four components – the first being racial salience or the extent to which race is a relevant part of an African American individual's self-concept at a particular moment in time. The second component, centrality, is the extent to which African Americans normatively define themselves with respect to race; it essentially captures how integral race is to a person's self-concept. The

third component, regard, is divided into two components – private regard and public regard. Private regard is an individuals’ emotional and evaluative judgment of other African Americans and their own membership in the group. Public regard refers to perceptions of others’ affective and evaluative judgments of African Americans. The last component is ideology and it refers to individuals’ beliefs, opinions, and attitudes with respect to the way they believe African Americans should behave. The present study examined the role of the MMRI’s centrality and two regard components, but did not examine racial ideology.

Studies of African American college students using the MMRI framework suggest that private regard is positively related to racial centrality and personal self-esteem, indicating that those who had positive feelings toward African Americans held race as a central part of their identity and had higher self-esteem (Rowley, Sellers, Chavous, & Smith, 1998). Prior work has found that as adolescents report increased racial centrality, they tended to report increases in affirmation and exploration of their racial identity (Kiang et al., 2010). Racial centrality has also been associated with the mitigation of the effects of racial discrimination in African American adolescents and young adults (Neblett, Shelton, & Sellers, 2004; Sellers & Shelton, 2003). These findings indicate that centrality and regard attitudes may act as buffers against the psychological impact of negative race-based experiences. Sellers and Shelton (2003) also reported that the association between racial discrimination and perceived stress was weaker for individuals for whom race was a more central aspect of their identity.

Work has shown that public regard is associated with perceived discrimination, both as an outcome and as a protective factor. In a longitudinal study of 219 African American adolescents (14 – 18 year olds), Seaton, Yip, and Sellers (2009) found that perceived discrimination was negatively related to public regard one year later. Interestingly, African

American adolescents who reported low public regard demonstrated relatively weaker associations between perceived discrimination and psychological adjustment compared to their counterparts reporting high public regard, suggesting a buffering effect (Sellers, Copeland-Linder, Martin, & Lewis, 2006). It is possible that similar relationships exist for African American college students. In addition, perceptions of how one's racial group is viewed or valued may encompass positive and negative stereotypes that can affect other aspects of functioning. For instance, Rivas-Drake (2011) found that higher public regard scores (believing that others viewed in-group members positively) were related to better academic adjustment (as characterized by GPA and perceived academic competence) among Latino adolescents.

The MMRI framework has been used to examine aspects of college adjustment for African American college students. College is often referred to as a consciousness-raising experience, as the diversity in peers, coursework, and social spheres often prompt individuals to think about their racial identity in new ways (Azmitia, Syed, & Radmacher, 2008). For African American students at a PWI, higher racial centrality has been related to greater feelings of ethnic fit on campus, which speaks to institutional adjustment (Chavous, 2000) and higher academic performance (Sellers, Chavous, & Cooke, 1998a). A study by Chavous et al., (2003) explored the longitudinal relationships between racial identity and academic outcomes for African American adolescents transitioning from high school to college. Findings indicated that adolescents with high centrality, positive private regard, and positive public regard had more positive academic beliefs (i.e. importance and relevance of academic achievement to them). Additionally, those who perceived positive public regard showed stronger attachment for school (i.e. level of emotional identification with institution).

Although there is very little research examining the associations between social support networks and racial identity, it is possible to extrapolate from studies examining racial and ethnic fit of African Americans at predominantly White institutions (PWIs). Several authors have suggested that African American students who are comfortable interacting with their White peers (i.e. having a social network including them) have an advantage during the college adjustment process at a PWI (Adan & Felner, 1995; D'Augelli & Hershberger, 1993). In support of this, several studies have found that African American students at PWIs who had interracial social networks in high school reported better college adjustment (Adan & Felner, 1995; Graham et al., 1985). Other work relevant to the relationship between social support and racial identity examines the role of the strength of a Black identity to social adjustment. Studies utilizing the MMRI framework suggest that a strong Black racial identity predicts better social adjustment at PWIs (Chavous et al., 2002; Sellers et al., 1998a; Thompson & Fretz, 1991). Earlier work by Taylor and Howard-Hamilton (1995) and Mitchell and Dell (1992) also found that as African American students developed a stronger sense of their racial identity, they became more socially integrated into campus activities.

Racial Socialization

The last racial factor examined in this study is racial socialization, defined as a set of behaviors, communications, and interactions from African American parents to their children regarding issues related to their racial identity (Bowman & Howard, 1985; Boykin & Toms, 1985; Phinney & Chavira, 1995; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002; Rodriguez, Umaña-Taylor, Smith, & Johnson, 2009). These messages and practices enable caregivers to convey their racial values and attitudes to their children and to shape their child's beliefs and attitudes about race (Hughes, 2003; Murray & Mandara, 2002). Two of the most

common messages are concerned with the installation of racial/cultural pride and preparation for bias. Racial pride messages emphasize African American unity, teachings about heritage, and instilling positive feelings toward their racial group. In providing preparation for bias messages, parents promote their children's awareness of discrimination and prepare them to cope with it; these messages in particular are considered critical components of racial socialization (Hughes et al., 2006). Another type of racial socialization message involves the promotion of mistrust, which emphasizes the need for wariness and distrust in interracial interactions (Hughes & Chen, 1999). Mistrust may be imparted through parents' cautions or warnings to children about other racial groups or about barriers to success (Hughes et al., 2006). Finally, African American parents may also communicate messages about egalitarianism, which explicitly encourage their children to value individual qualities over racial group membership (Spencer, 1983). This type of message emphasizes hard work, virtue, self-acceptance, and equality (Demo & Hughes, 1990; Marshall, 1995; Thornton, Chatters, Taylor, & Allen, 1990).

Racial socialization is a common practice among African Americans parents, who are faced with the daunting task of providing information that will allow their children to survive and flourish in a society that often devalues their culture (Caughy, O'Campo, Randolph, & Nickerson, 2002; Livingston and McAdoo (2007); Stevenson & Arrington, 2009). In an analysis of the National Survey of Black Americans (NSBA), Thornton et al. (1990) found that two out of every three Black parents indicated that they provided their child with some type of racial socialization. In addition, retrospective studies, in which African American adults recalled the racial socialization provided by their parents, have indicated that approximately 50% to 80% of these adults received racial socialization messages (Parham & Williams, 1993; Sanders Thompson, 1994). In general, the most influential and primary socializing agent in African

Americans is considered to be the family (Greene, 1992) with studies finding that the majority of Black adults discussed racial issues with their parents or another family member while growing up (Sanders Thompson, 1994). Research on demographic factors and racial socialization find that parents, in general, and mothers, in particular, who have higher levels of education are often more likely to be involved in the racial socialization process (Frabutt, Walker, & MacKinnon-Lewis, 2002; White-Johnson, Ford, & Sellers, 2010). Parents with higher socioeconomic status are also more likely to racially socialize children (Crouter, Baril, Davis, & McHale, 2008).

Racial socialization may also be a significant positive predictor of academic adjustment and achievement. Certain types of messages, such as preparation for bias, may lessen adolescents' vulnerability to racial stereotypes, which may influence performance and academic achievement (Smith, Atkins, & Connell, 2003; Mendoza-Denton, Downy, Purdie, Davis, & Pietrzak, 2002). Specifically, Anglin and Wade (200) found that in a sample of 141 African American students at a PWI, racial socialization was a significant positive predictor of academic adjustment. Thus, receiving racial socialization messages while growing up about being proud of their Black heritage and about the realities of racism, appeared to contribute to African American students being able to experience positive aspects of academic adjustment. The authors noted that these students seemed to feel more satisfied with academic courses and performance, and to have a sense of purpose in college. In essence, socialization messages warn adolescents about the potential pitfalls they may face and inoculates them to some of the later stressors they confront, especially those related to race (Neblett et al., 2008). There is some empirical evidence for this notion. For instance, Bowman and Howard (1985), in a study of youth from adolescence to early adulthood, examined associations between academic achievement and racial socialization messages regarding preparation for bias, pride development, self-development, and

egalitarianism. Results indicated that youth who received messages emphasizing awareness of racial inequalities had higher school grades than those who had not received such messages. In addition, Neblett, Philip, Cogburn, & Sellers (2006) found that racial socialization messages about self-worth and participation in activities or behaviors involving African Americans were positively related to academic persistence and self-reported GPAs among young adolescents.

Although research has not shown a direct link between racial socialization and social support or social support networks in African American students, there are reasons to expect these relationships may exist. For example, messages related to preparation for bias or promotion of mistrust may result in adolescents seeking social support mostly from other African Americans (i.e. creating social networks consisting mainly of other African Americans). In so doing, African Americans can build a social network of individuals that can understand their unique experience, which may increase their comfort on a predominantly White campus where they may feel or expect to feel threatened or unwelcomed. The work discussed above supports the further investigation of the impact racial socialization and social support may have on the college adjustment experience of African American students at a predominantly White institution.

The Present Study & Hypotheses

As argued throughout the introduction, there is some indirect evidence indicating that the racial factors examined in this study and social support networks are related for African American students adjusting to a predominantly White institution (PWI). For these students, the size and racial composition of their social networks may be of particular importance in their successful adjustment. However, the direct relationship between these racial factors and social

support networks has not been fully examined, and thus the possible mechanisms between racial factors and adjustment remain unclear in the literature.

The main goal of this study was to clarify this relationship by examining if social support networks (defined as the total number of social support providers and the total number of African American social support providers) mediate the relationship between racial factors (i.e. racial identity, racial socialization, and racial climate) and the college adjustment of African American students at a PWI. Given that college adjustment is a multifaceted process, we chose to look at overall adjustment, as well as institutional adjustment. Since the findings discussed above are about the negative effects of poor person-environment fit and cultural incongruence for the adjustment of African American students at PWIs, institutional adjustment may be particularly impacted by racial factors and social support. Additionally, we choose to examine several racial factors simultaneously in order to identify which racial factors were the most critical to the adjustment of these students.

This study utilized a longitudinal design and examined the influence of each of these racial factors on the college adjustment process and social support networks of African American students across two time points, specifically at the beginning of the semester and again at the end of semester. This design may be more informative than a cross-sectional study design as research indicates that social support has a delayed effect on college adjustment (Pratt et al., 2000). This is also consistent with studies demonstrating that the building of an interpersonal relationship is a gradual and systematic process in which the depth of the relationship increases in time (Levinger & Snoek, 1972). The longitudinal design also allows for an examination of causal relationships and mechanisms that would not be possible with cross-sectional data.

Finally, I was interested in examining how the relationship between these racial factors, college adjustment, and the size and racial composition of the social support networks might differ for two groups of African American students who are transitioning at key times – freshman and junior transfers. As discussed earlier, less work is known regarding the transition for junior students who transfer to a four-year institution in comparison to students in the first year of college. Although this study was primarily interested in the overall transition experience of African American students, because there may be qualitatively different experiences for each group, I also tested if class standing makes a difference.

Hypothesis 1. Racial climate (previous and current), racial socialization, and racial identity (centrality, private regard, public regard) will predict college and institutional adjustment, both concurrently (at T1 & T2) and prospectively (T1 predicting T2).

- a) Given empirical work that suggests that African American students from more racially diverse previous environments have better college adjustment (Adan & Felner, 1995; Chavous et al., 2002; Davis, 1994; Graham et al., 1985; Massey & Fischer, 2006; Sherman et al., 1994), it was hypothesized that positive self-reports of previous racial climate —typically associated with greater diversity—would predict better college and institutional adjustment at T1 and T2.
- b) Based on the empirical work showing that negative campus racial climates can negatively influence African American persistence at college (Allen, 1988; Engber, 2004; Feagin & Sikes, 1995; Holmes et al., 2002; Nettles, 1988; Solórzano et al., 2000); Suarez-Blacazar et al., 2003), it was predicted that positive current racial climate would be associated with better college and institutional adjustment concurrently (at T1 & T2) and prospectively (T1 predicting T2).

- c) Given studies showing that centrality, and private and public regards are correlated with good adjustment at PWIs (Chavous et al., 2003; Chavous, 2000), it was predicted that higher centrality, private and public regard would all be associated with better college and institutional adjustment concurrently (at T1 & T2) and prospectively (T1 predicting T2).
- d) Based on research findings that racial socialization is a significant positive predictor of academic adjustment (GPA and persistence; Bowman & Howard, 1985; Neblett et al., 2006), it was expected that higher frequency of racial socialization messages would be associated with better college, which partially includes academic success, and institutional adjustment concurrently (at T1 & T2) and prospectively (T1 predicting T2).

Hypothesis 2. Racial climate (previous and current), racial socialization, and racial identity (centrality, private regard, public regard) will predict the total number of social support providers and the total number of African American social support providers concurrently (at T1 & T2) and prospectively (T1 predicting T2).

- a) It was hypothesized that positive self-reports of previous racial climate would predict both larger social support networks and more African American social support providers concurrently (at T1 & T2) and prospectively (T1 predicting T2), as positive prior racial climates may lead students to try to create similar environments in their current one by developing robust social support networks made up of family and same race peers.
- b) It was expected that positive current racial climate would predict greater numbers of social support providers as well as greater number of African American social support providers concurrently (at T1 & T2) and prospectively (T1 predicting T2), since having a positive perception of the campus climate is likely to be an indicator of less isolation and

may encourage students to develop larger social support networks consisting of family and same race peers, which has been shown to help African American college students succeed at PWIs feel more comfortable on campus (Gloria et al., 1999; Guiffrida, 2003).

- c) It was predicted that higher centrality, private and public regard would all be associated with greater numbers of social support providers as well as more African American social support providers concurrently (at T1 & T2) and prospectively (T1 predicting T2), since having a stronger Black racial identity may lead African American students to actively seek out other same-race peers at a PWI.
- d) It was expected that higher frequency of racial socialization messages would be associated with greater numbers of African American social support providers concurrently (at T1 & T2) and prospectively (T1 predicting T2), as those who received more preparation for bias or mistrust messages might be more likely to seek support from other African Americans, given that many racial socialization messages usually depict majority group members as perpetrators of the bias and emphasize the need for wariness and distrust in interracial interactions (Hughes et al., 2006).

Hypothesis 3. Building on research that shows that a perceived lack of positive social support negatively affects the performance of African American college students (Allen, 1992; Oliver, Smith, & Wilson, 1989; Sedlacek, 1987), it was hypothesized that larger social networks as well as more African American social support providers would predict better college and institutional adjustment concurrently (at T1 & T2) and prospectively (T1 predicting T2).

Hypothesis 4. The relationship between the racial factors (racial climate, racial socialization, and racial identity) and college adjustment (overall and institutional) will be mediated by the total

number of social support providers and the number of African American social support providers (T1 predicting T2).

Hypothesis 5. The final hypothesis was a set of exploratory analyses aimed at uncovering whether any significant relationships observed in Hypotheses 1-3 differed by freshman or junior status. Given the lack of previous research in this area, no specific hypotheses were made regarding the direction of the differences.

METHOD

Participants

Participants were 113 African American college students at The Pennsylvania State University (Penn State). All participants self-identified as Black (i.e., African American, African, or West Indian). Exclusion criteria for all participants included being under age 18, sophomores or seniors, and not identifying as Black. Students were recruited from the psychology subject pool and from the larger Penn State student population through emails to various listservs (student groups, department and college mailing lists, etc.), handing out flyers to students, and poster advertisements placed at various locations on campus (e.g. library, dorms, dining halls). Those recruited from the subject pool were given class credit while those participants recruited via other means were paid \$20 for completing the study (\$10 per survey at each time point). This study was reviewed and approved by Penn State's Institutional Review Board (IRB) and all participants were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 2002).

Procedure

Data were collected during two different waves from January 2014 to February 2015. The first cohort of participants was collected during spring semester 2014 (January – June) while the second cohort was collected during fall semester 2014 into early winter semester 2015 (August – February). Participants were given ample time to fill out the survey at the beginning (during the first two months after the start of classes) and the end (beginning two weeks before to a month after the last day of classes) of each semester. A total of 183 eligible students took the study but only 120 of them completed the survey at both time points. All efforts were made to ensure that participants completed the second survey by sending three email reminders at the end of each semester in 2-week intervals during the six-week period they had to complete the final survey. These emails included clear instructions on how to complete the second survey as well as a direct link to the questionnaire. Despite these efforts, 63 participants still failed to complete the second time point and were not utilized in the analyses as a result. Seven of these 120 students had considerable missing data on the Student Adaptation to College Questionnaire, one of the primary outcome measures, and they were therefore not included in the final analysis, resulting in a final sample size of 113.

Data were collected online using PsychData™, an online research survey service designed for the complete administration of questionnaires, surveys, and experiments for social science research purposes. Upon accessing the study from a secure website link provided by the researcher, participants were asked to read an informed consent document and to indicate their consent to participate by clicking a button labeled “Continue.” Participants were then directed to the first question, which was a demographic screener that asked the potential participant to identify their primary ethnic/cultural/racial group as well as their year in college. Only those

participants that identified their ethnic identity as “Black” and their class standing as “freshman” or “junior” were allowed to continue to the study measures. After completion of the study at the first time point, participants were reminded that they would be contacted at the end of the semester to complete the study a second time. Debriefing information was provided on-screen to each participant upon completion of the study at each time point.

Measures

Demographics. Respondents were asked about their age, gender, family household income and composition, previous institution information type, head of the household information (occupational status and educational attainment), and family income. Socioeconomic status was determined using Hollingshead’s (1975) Four Factor Index of Socioeconomic Status to calculate total score based on the head of household’s highest education level and current occupation.

Adjustment to college. College student adjustment was measured with the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999). The SACQ includes 67 items that measure the quality of adaptation to college life and conceptualizes college adjustment as a multifaceted process. It contains four subscales: Academic Adjustment, Social Adjustment, Personal-Emotional Adjustment, and Institutional Adjustment. The Academic Adjustment subscale (24 items) measures how well the student copes with the various educational demands of the college experience and examines their academic motivation and application, the success of their academic efforts, and their satisfaction with the academic environment – a sample item is “My academic goals and purposes are well defined.” The Social Adjustment subscale (20 items) assesses how well the student manages the interpersonal demands at college such as the extent and success of their social activities, their involvement and relationships with others and their

satisfaction with the social environment – a sample item is “I am very involved with social activities in college.” The Personal-Emotional Adjustment subscale (15 items) focuses on the student’s psychological and somatic aspects of the transition to college – a sample item is “Lately I have been feeling blue and moody a lot.” The Institutional Adjustment subscale (15 items) assesses the degree of commitment and attachment the student feels toward their institution – a sample item is “I am pleased now about my decision to attend this college in particular.” This study focused on the overall adjustment and Institutional Adjustment as the main outcomes.

All items are rated on a scale ranging from 1 (doesn’t apply to me at all) to 9 (applies very closely to me) with higher scores representing better adjustment. The internal consistencies (i.e., Cronbach’s alpha) for the full-scale score in the current study at each time point were excellent at .94 and .95 for the beginning (T1) and end (T2) of the semester, respectively. The internal reliabilities for each of the subscales were also high at each time point: Academic Adjustment (.91 and .90), Social Adjustment (.89 and .92), Personal-Emotional Adjustment (.85 and .84), and Institutional Adjustment (.88 and .91).

Social support network. The Social Resources and Social Supports Questionnaire (SRSQ; Myers, 1996) is a multidimensional measure that assesses the characteristics of social networks and the level of social support obtained from primary social relationships. The SRSQ was developed and tested on African-American adults, and has been used in several studies with multi-ethnic samples of college students. The SRSQ consists of a Social Network scale, a Social Supports scale, and a Social Relationships stress scale. This study utilized the Social Network scale, which measures the size, composition, dimensionality, and density of social networks. Network size examines the number of persons in one's primary social network; composition

assesses the number of relatives, friends and others included as important; dimensionality measures the complexity of the relationships in the network (i.e. the type of shared activities); and density of the network which is the number of independent relationships within the network.

This study adapted the Social Network scale by focusing on the size and composition of respondents' primary social networks. As in the original measure, participants were asked to list people who they considered significant in their life, the type of relationship (i.e. father, mother, friend, etc.), and the types of activities they did with them. This study modified the measure by also asking participants to list the race and gender of these individuals. In order to reduce the test-taking burden of this measure, due to the additional demographic details being asked about each support provider, participants were required to only list up to 6 individuals. Two variables were computed for this measure – the first summed the total number of social support providers and the second counted the total number of African Americans social support providers.

Previous and current campus racial climate. The Racial Climate Scale (RCS; Reid & Radhakrishnan, 2003) was utilized to measure perceptions of campus racial climate at the current institution and at participants' previous institution (high school or two-year campus). The scale is a nine-item scale that assesses the extent to which students view the campus racial climate as negative and participants were asked to respond using a response scale ranging from 1 (strong agreement) to 7 (strong disagreement). The Racial Climate Scale consists of two subscales – a Racial Experiences scale that has 5 questions and a Perceptions of the University scale with 4 questions. The Racial Experiences scale asks specific questions about experiences with racism; a sample item is “This campus is more racist than most.” The Perceptions of the University scale queried students' views about their university's commitment to diversity; a sample item is “The

university makes a genuine effort to recruit racial and ethnic minority students.” The scale was recoded so that higher scores represented more positive perceptions of the climate.

The questionnaire was given once in reference to the prior institution and again in reference to the current institution. Thus, respondents answered 18 questions in all – nine for their previous institution (Previous Racial Climate) and nine for their current one (Current Racial Climate). Validity of the RCS has been established through positive associations with a general campus climate scale as well as significant racial group differences on the measure (Reid & Radhakrishnan, 2003). The authors of the scale reported reliability coefficients of .70 for the Racial Climate scale. The current study had acceptable to good internal reliability. Previous Racial Climate was .78 and .87 at each time point while Current Racial Climate was .83 and .84 at each time point.

Racial identity. The Multidimensional Inventory of Black Identity (MIBI; Sellers et al., 1998b) is a 56-item questionnaire that assesses three dimensions of the Multidimensional Model of Racial Identity (MMRI). The MIBI examines the significance that individuals place on race in defining themselves and their interpretation of what it means to be Black. The MIBI operationalizes three of the four dimensions of racial identity measured by the MMRI; specifically Ideology, Regard, and Centrality (Sellers et al., 1997). This study utilized two of these scales, Centrality and Regard, which has two subscales – Private and Public Regard. Centrality assesses the extent to which race is a core part of an individual’s self-concept and is indicative of the extent to which the individual affirms race to be an important defining characteristic in his or her identity (e.g. “Being Black is an important reflection of who I am”). Private Regard assesses the extent to which individuals feel positively or negatively towards African Americans and their own membership in that group (e.g. “I am proud to be Black”).

Public Regard assesses the extent to which individuals feel that others view African Americans positively or negatively (e.g. “In general, other groups view Blacks in a positive manner”). Responses are made on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 4 (Neutral) to 7 (strongly agree).

Because the MIBI is based on multidimensional conceptualization of racial identity, a composite score from the entire scale is not calculated. The MIBI subscales have shown adequate internal consistency with Cronbach’s alphas ranging from .60 to .79 for the six subscales. The internal reliability of the three subscales in this study at each time point were adequate to good with .73 and .78 for Centrality, .82 and .89 for Private Regard, and .84 and .77 for Public Regard.

Racial socialization. The Teenage Experience of Racial Socialization (TERS; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002) is a 40-item self-report measure assessing the frequency and type of racial socialization messages and/or practices teenagers receive from their parents. Responses range from 1 (never) to 3 (lots of times), with higher scores indicating greater frequency of socialization messages. The TERS has five subscales: Cultural Coping with Antagonism (CCA) which are items that represent messages about the importance of struggling successfully through racial hostilities; Cultural Pride Reinforcement (CPR) which are items and attitudes that endorse the teaching of pride and knowledge of African American culture; Cultural Legacy Appreciation (CLA) which are items about cultural heritage issues such as enslavement and knowing historical issues for African Americans; Cultural Alertness to Discrimination (CAD) which are items about being aware of the barriers of racism in society; and finally Cultural Endorsement of the Mainstream (CEM) which are items that represent messages about the relative importance of the majority culture institutions and values. The scale also has a

composite factor, Cultural Socialization Experience (CULTRS) which combines the first four of the above five TERS factors. As the present study was primarily interested in the effect of overall socialization, the composite CULTRS scale was the principal variable of interest. That said, the effects of the other subscales were also examined. Racial socialization was measured only at the beginning of the semester since racial socialization would likely not change much over time, as these are messages accumulated from childhood.

Support for the construct validity of the measure has been found in college samples (Thompson, Anderson, & Bakeman, 2000). The Cronbach's alpha for the CULTRS was .91 in a previous study (Stevenson et al., 2002) and was .93 in the present study. It must be noted that due to experimenter error, the racial socialization predictor variable was only collected for the first cohort of participants ($N = 58$). As a result all analyses using the CULTRS had reduced power relative to the other racial factors. All the remaining predictor variables utilized the entire sample.

Data Analysis Plan

All the variables conformed to assumptions of normality, linearity, and homoscedasticity except for private regard which was not normally distributed at either time point (T1 - beginning of the semester and T2 - end of the semester). The only transformation that resulted in normality was a reverse log transformation. However, doing so resulted in negative correlations between private regard and all of the other racial identity variables, which contradicted to findings from previous studies (Rowley et al., 1998). Furthermore, Grayson (2004) states that transforming variables changes the construct used, especially for log transformations. As a result, the untransformed variables were used in all analyses in order to reflect the accurate statistical relationships.

In order to test the hypotheses and the longitudinal association between the predictors (racial climate, racial socialization, and racial identity) and the outcomes – overall college and institutional adjustment, the total number of social support providers, and the total number of African American social support providers – I initially attempted to analyze the data utilizing structural equation modeling techniques with SPSS Amos 22. The structural equation model with all of the predictors and the outcomes at each time point was tested. There was one latent variable representing racial identity, comprising racial centrality, private regard, and public regard. Each observed variable in the latent variables included error terms. Unfortunately, the structural equation modeling with these variables and parameters failed to converge (model was unidentified). Additional adjustments to the model such as removing the latent variables and using only manifest variables or predicting the outcomes only at one time point also led to an unidentified model. An ad-hoc power analysis indicated that there was insufficient sample size to run the desired models and that a minimum sample size of 152 was needed to detect a small effect. As a result, the hypotheses were then tested using multiple regressions.

In order to test Hypotheses 1-3, we planned a series of standard multiple regression analyses except for racial socialization. A separate regression was conducted with racial socialization to address the fact that I only had racial socialization data for 58 participants. This also allowed me to still examine the effect of racial socialization on the outcomes of interest while also conducting fully powered analyses for Hypotheses 1 and 2.

For Hypothesis 2, the outcome variable was the total number of social support providers and the total number of African American social support providers. The predictors were the same as in the first hypothesis and again separate regressions were conducted for racial socialization. For Hypothesis 3, the outcome was overall and institutional adjustment and the predictors were

the total number of social support providers and the total number of African American social support providers. Separate analyses were not conducted for racial socialization in this case, as it was not one of the predictor variables.

For Hypothesis 4, assuming that the regression models for Hypotheses 2 & 3 yielded significant relationships between the racial factors and social support as well social support and college adjustment, we planned to test the mediation formally by using bootstrapping methods with Sobel tests to determine the statistical significance of the mediation effect (Preacher & Hayes, 2008). The bootstrapping method does not violate assumptions of normality and is ideal for small sample sizes.

Hypothesis 5 was planned to explore whether any significant relationships observed in Hypotheses 1-3 differed by freshman or junior status, involved conducting a moderation analyses by examining the significance of the interaction term formed by class, the relevant racial factors, and the number and race of social support providers. In an effort to conserve power (due to the limited sample size), we planned that any moderation analyses conducted would only be for those relationships that were significant. All independent variables and covariates (i.e. gender) would be centered.

RESULTS

Descriptive Information

Descriptive statistics, including means and standard deviations, were computed for all of the study variables. Participants included females ($n = 71$) and males ($n = 42$) and all were 18 years of age or older ($M = 19.39$, $SD = 1.53$). Students were split approximately evenly by class standing between freshman ($n = 56$) and juniors ($n = 57$). The mean social class index for this

sample was 40.44 (SD = 18.14), which fell within the upper middle class category. Additionally, most of the sample reported family members as the majority of their social support network (out of a total of 6) at both Time 1 (M = 3.40, SD = 1.45) and at Time 2 (M = 3.46, SD = 1.28).

Table 1 shows the means and correlational relationships among the variables. For the racial identity variables, participants' ratings were slightly above "neutral" for centrality indicating that being African American was not a core part of their self-concept. They rated highly on private regard indicating strong positive feelings about being African American and low on public regard suggesting that they mildly disagreed that others viewed African Americans negatively. These patterns were consistent across both time points for racial identity.

Participants' overall college adjustment was in the 46th percentile at T1 (beginning of the semester) and in the 38th percentile at T2 (end of semester) indicating slightly below average adjustment at both time points (Baker & Siryk, 1999). The average total number of African American social support providers was 4.41 (SD = 1.58) at T1 and 4.41 (SD = 1.42) at T2 while the total number of all social support providers was $M = 5.36$ (SD = 1.13) and 5.31 (SD = 1.27), at time points one and two respectively.

Pearson product-moment correlations of the bivariate relationships among the variables at each time point are listed in Table 1. Overall, college adjustment was significantly positively correlated with several variables; most strongly with current racial climate and private regard. For example, overall college adjustment at T1 was related to current racial climate $r(111) = .41$, $p < .01$ and private regard $r(111) = .39$, $p < .01$ at T1. This pattern was also seen for overall college adjustment at T2 which was significantly related with current racial climate $r(111) = .41$, $p < .01$ and private regard $r(111) = .36$, $p < .01$ at T2. These correlations show that those who rated the current racial environment on campus as more positive or felt good about being African

American also reported better general college adjustment. Overall college adjustment at T1 was also associated with current racial climate $r(111) = .31, p < .01$ at T2, private regard $r(111) = .26, p < .01$ at T2, and public regard $r(111) = .23, p < .05$ at T2.

I examined the intercorrelations between the various subscales of the SACQ in order to investigate possible relationships between the racial factors and the institutional adjustment subscale. These analyses showed that current racial climate at T1 it was highly correlated with institutional adjustment at T1 $r(111) = .36, p < .01$ as well as at T2 $r(111) = .39, p < .01$. Current racial climate at T2 was also correlated with institutional adjustment at T2 $r(111) = .44, p < .01$. Racial private regard at T1 was strongly correlated with institutional adjustment at T1, $r(111) = .29, p < .01$. The results above suggest that those who considered the current racial environment on campus to be more positive or felt good about being an African American also had better overall and institutional adjustment at both time points.

The total number of social support providers at T1 was significantly negatively correlated with public regard at T2, $r(111) = -.19, p < .05$ suggesting that the larger a participant's social network was, the more negatively they thought that larger society viewed African Americans. The number of social support providers at T1 was also negatively correlated with the CEM racial socialization subscale (i.e. messages received that endorsed mainstream institutions and values) at T1, $r(56) = -.32, p < .05$. The total number of African American social support providers at T1 was significantly positively correlated with centrality at T1, $r(111) = .22, p < .05$ and private regard at T1, $r(111) = .23, p < .05$. This indicates that the more African Americans in a participant's social network, the more being African American was core to their self-identity and the better they felt about being African American.

The majority of the demographic variables (age, gender, or SES) were not significantly associated with the outcomes, but gender was significantly negatively correlated with private regard at T2, $r(111) = -.22, p < .05$. Consequently, gender was included as a control variable in the analyses with private regard at T2. All of the other demographic variables were excluded from further analyses in order to conserve statistical power.

Racial Factors Predicting College Adjustment

Tables 2 – 4 provide the results of standard multiple regressions used to test if racial factors (previous and current racial climate, centrality, private regard, and public regard) predicted overall college and institutional adjustment concurrently (at T1 & T2) and prospectively (T1 predicting T2). Contrary to Hypothesis 1a, more positive previous racial climate was associated with worse institutional adjustment at T1 and was not related to overall college adjustment at T1 (Table 2). When racial socialization was included in the analyses, more positive previous racial climate was still associated with worse institutional adjustment at T1, $\beta = -.27, t(106) = -2.37, p < .05$, but not overall college adjustment at T1, $\beta = -.24, t(106) = -1.93, p = .06$.

In partial support of the Hypothesis 1b, current racial climate was strongly concurrently related to college adjustment, but did not predict adjustment at T2. Table 2 shows that higher ratings of current racial climate at T1 were associated with better overall college adjustment and institutional adjustment, both at T1 and T2. Table 3 shows that higher ratings of current racial climate at T2 were associated with better overall college adjustment, $\beta = .33, t(107) = 3.35, p = .001$, and institutional adjustment, $\beta = .36, t(107) = 3.65, p < .001$, both at T2. Contrary to the second part of the hypothesis, higher ratings of current racial climate at T1 did not prospectively

predict overall college adjustment at T2 or institutional adjustment at T2 when the outcomes at T1 were controlled for (Table 4).

In mixed support of Hypothesis 1c, private regard also had a strong relationship to overall college and institutional adjustment concurrently. Table 2 shows that higher private regard at T1 was related to overall college adjustment and institutional adjustment, both at T1. Similarly, higher private regard at T2 was related to overall college adjustment and institutional adjustment, both at T2 (Table 3). When racial socialization was included in the analyses, these relationships were retained with higher private regard at T1 still associated with better overall college adjustment, $\beta = .54$, $t(106) = 3.67$, $p = .001$, and institutional adjustment, $\beta = .57$, $t(106) = 4.18$, $p < .001$, both at T1. Contrary to the second part of the hypothesis, higher ratings of private regard at T1 did not prospectively predict overall college adjustment at T2 or institutional adjustment at T2 when outcomes at T1 were controlled for (Table 4).

As mentioned above, only a subset of the participants completed the racial socialization scale, and therefore the analyses involving this predictor had a reduced sample size ($n = 58$). Contrary to Hypothesis 1d, greater racial socialization (full scale score) was not concurrently related to overall college adjustment at T1, $\beta = -.06$, $t(106) = -.45$, $p = .65$ or institutional adjustment at T1, $\beta = .12$, $t(106) = 1.02$, $p = .31$. It also did not prospectively predict either outcome at T2 (Table 4). Findings for the individual racial socialization subscales mirrored the results of the overall score.

Relationships between Racial Factors, Social Support, and College Adjustment

No significant results were found in support of Hypothesis 2 which tested whether the racial factors (previous and current racial climate, racial socialization, centrality, private regard, and public regard) were associated with the total number of social support providers and the total

number of African American social support providers, either concurrently or prospectively (see Tables 5 – 7). Contrary to Hypothesis 3, having a larger social network or more African American social support providers did not predict better college adjustment concurrently (Table 8) or prospectively (Table 9).

The correlations needed to test for statistical mediation were non-significant between the mediating variables (total number of social support providers and total number of African American social support providers) and college adjustment. Additionally, the total number and number of African American social support providers did not predict college adjustment at either time point. As a result, the hypothesized mediation was not formally tested.

Exploratory Analyses with Class Differences

In order to examine any possible group differences by class standing, exploratory moderation analyses were conducted utilizing hierarchical regression to determine if the significant relationships observed in Hypotheses 1 -3 differed between freshman and junior transfer students. Moderation analyses were conducted only for those relationships that were significant given the limited power with the available sample size. These analyses revealed two significant, two-way interactions. There was an interaction between class standing and private regard at T2 in predicting total college adjustment at T2 (overall $R^2 = .29$, $\Delta R^2 = .04$, $\beta = .53$, $p < .05$) and institutional adjustment at T2 (overall $R^2 = .25$, $\Delta R^2 = .05$, $\beta = .58$, $p < .01$).

In order to understand the nature of these significant two-way interactions, we conducted additional standard regression analyses for freshmen and junior transfers separately. These regression analyses showed significant results only for the junior transfer students. Higher current racial climate at T2, $\beta = .37$, $t(107) = 3.22$, $p < .01$ and higher private regard at T2, $\beta = .49$, $t(107) = 4.28$, $p < .001$ were both associated with overall college adjustment at T2.

Additionally, higher current racial climate at T2, $\beta = .30$, $t(107) = 2.49$, $p < .05$ and higher private regard at T2, $\beta = .53$, $t(107) = 4.38$, $p < .001$ were related to better institutional adjustment at T2.

DISCUSSION

The present study sought to examine whether social support networks (operationalized as the total number of social support providers and the total number of African American social support providers) would mediate the relationship between racial factors (i.e. racial climate, racial identity, and racial socialization) and the college adjustment (i.e. overall adjustment and institutional adjustment) of African American students at a predominantly White institution (PWI). I was unable to conduct formal tests of mediation because the various prior steps needed to infer mediation (i.e. racial factors predicting total size of the social network of these students or the number of African Americans in the social network; and these social support factors predicting college adjustment) were not supported by the data. That said, some of the racial factors examined were concurrently associated with college adjustment, though none were prospectively predictive of adjustment. Specifically, current racial climate and private regard were significantly associated with concurrent college adjustment. Lastly, study findings indicate that the relationship between racial factors and college adjustment were moderated by class standing. These particular results add valuable knowledge to the understanding of the college transition process for junior transfer students and the racial factors that may influence their persistence at four-year institutions.

Racial Factors Predicting College Adjustment

The hypothesis that racial factors (previous and current racial climate, racial socialization, centrality, private regard, and public regard) would concurrently and prospectively predict overall college and institutional adjustment was partially supported by the findings. Current racial climate, in particular, was strongly associated with both overall and institutional college adjustment. *Higher* ratings of the current racial climate were concurrently (at T1 & T2) related to *better* overall college and institutional adjustment. However, it was not prospectively (T1 predicting T2) related to overall or institutional adjustment at the end of the semester. The lack of prospective findings may be a result of there being not enough time to measure the causal relationships and mechanisms between the variables. Previous work indicates that social support has a delayed effect on college adjustment (Pratt et al., 2000) and that developing interpersonal relationships is a gradual and systematic process in which the depth of the relationship increases over time (Levinger & Snoek, 1972). As such, it is possible that a semester was simply not long enough for these processes to occur on a measureable level.

The findings of a concurrent relationship between current racial climate and both types of college adjustment parallel research that current racial climate influences different aspects of the college adjustment experience for African American students at a PWI. Areas including academic achievement, social integration, and psychological symptoms have been shown to be influenced by current racial climate (Allen, 1988; Davis, 1994; Engber, 2004; Holmes et al., 2002; Nettles, 1988; Pascarella & Terenzini, 2005; Suarez-Blacazar et al., 2003). All these factors make up the overall college adjustment score that served as the primary dependent variable in the present study. The positive relationship between current racial climate and institutional adjustment also indicates that study participants felt that there was a

positive cultural congruence or a good cultural fit between them and the university environment (Gloria et al., 1999). Finally, my results are also consistent with prior work showing that when African American college students consider the university environment to be compatible with their own interests and values, it is associated with good person-environment fit and better subjective well-being (Triandis, 2000).

Findings from the exploratory analysis seem to suggest that the junior transfer students in the sample were the primary drivers of the findings above. My results showed that perceptions of the current racial climate were an important factor in the successful adjustment of junior transfer students at a predominantly White institution. This finding makes sense as previous work suggests that one of the principal challenges for transfer students is adjusting to a new campus culture that may be very different from their previous campus (Laanan, 2001; Townsend, 1995). Although freshmen face similar challenges, junior students have already been in a college environment for two years and may feel that they should know how to adapt to the new institution. Additionally, unlike freshman, junior transfer students often have fewer sources of on-campus support and resources upon arrival at a four-year institution (Davies & Casey, 1998; Kodama, 2002). They may face unique difficulties in adjusting to their new environment such as finding off-campus housing and building a new social network in an environment where their peers have known each other for two years. Thus, experiencing the current racial climate as positive may help them overcome some of these challenges and contribute to better overall adjustment and a stronger sense of belonging on campus. It is possible that a more positive current racial climate is less critical for freshman because of built in resources such as the dormitory community and dedicated advisors that may facilitate a smoother transition for them.

Interestingly, previous racial climate was negatively associated with institutional adjustment at the beginning of the semester (T1). For African American students in the present study, coming from places with a good racial climate (which may have had more African American students) might have resulted in a negative comparison with the new institution. Constantly thinking that things were better in their high school or branch campus because of better cultural fit (associated with having more same-race peers) might have impeded the extent to which they were able to identify with and attach to their current, predominantly White institution (institutional adjustment). It would be interesting to examine the characteristics of the previous racial climate and whether it included factors like more racially diverse environments, which has been linked to better college adjustment (Adan & Felner, 1995; Chavous et al., 2002; Davis, 1994; Graham et al., 1985; Massey & Fischer, 2006; Sherman et al., 1994).

Aspects of racial identity were also concurrently, but not prospectively, associated with overall college and institutional adjustment. I found that when considered simultaneously, only private regard was strongly associated with adjustment while centrality and public regard was not. *Higher* private regard was concurrently related to both *better* overall college adjustment and institutional adjustment, but only at T2. These findings differ from Chavous et al.'s (2003) study where high public regard but not private regard was associated with stronger school attachment (institutional adjustment). This difference may partly be due to the demographic differences between the participants in the two studies. My sample was approximately two years older than Chavous et al.'s study, who were in their final year of high school. This is a developmental period characterized by high concern with peer's opinions, which may contribute to the greater influence of public regard beliefs on their school attachment in Chavous et al.'s findings. Additionally, there were dissimilarities in terms of socioeconomic status with the participants in

my study having mainly upper middle class backgrounds compared to the mostly lower middle class sample in the Chavous et al study.

The private regard finding also appeared to be powered chiefly by the junior transfer students for whom stronger private regard (i.e. more positive feelings about being African American) was associated with better college adjustment. This result may be explained by previous findings that private regard is positively related to higher self-esteem (Rowley, et al., 1998). Perhaps for junior transfer students, feeling comfortable with their Black identity on a predominantly White campus may bolster their general self-esteem and help them address challenges associated with their transfer. Difficulties such as managing the larger size and location of the new institution, in addition to a more rigorous curriculum or greater competition among students (Laanan, 1996) as compared to the perhaps more supportive and relaxed institutional culture of the previous institution may all be assisted by having a more positive identity. These findings add to the burgeoning literature on the college adjustment experience of African American transfer students and suggest possible areas in which to intervene to improve their experiences, which the extant literature primarily characterizes as negative (Laanan, 2000).

It was interesting that centrality was not associated with better institutional adjustment or overall adjustment as other findings have found higher racial centrality to be related to greater feelings of ethnic fit on campus, having an African American best friend, and having more social contact with African Americans (Chavous, 2000; Sellers et al., 1997). However, this difference may be a result of the fact that the participants in the present study reported lower centrality indicating that it was not a principal part of their identity. One explanation for this finding is that those for whom being Black in an integral part of their identity may be less likely to choose to attend a PWI and instead prefer a more diverse school or HBCU. Another reason may be that this

sample consisted mainly of women, and it is possible that their gender was more central to their identity in the context of their adjustment to college. Being a woman is another minority status associated with its own disadvantages, and perhaps these were more salient for the women in this study. The present study's results may be partially explained by Taub and McEwen's (1992) work finding negative relationships between racial identity beliefs (i.e. less strong racial group identification) and measures of interpersonal development for African American undergraduate women at a PWI.

Other work suggests that it is during college when individuals begin to think about the intersections among their multiple important identity domains, consistent with the work of Erikson (1968). No longer is racial identity considered in isolation, but also how it intersects with gender identity, social class identity, national identity, career identity, and political identity, as examples (Bowleg, 2008; Syed & Azmitia, 2010). Both my study and this earlier work imply that the interaction of both race with other identities influence college adjustment for African Americans. Future studies should examine gender differences and the impact of other social identities in order to clarify the role that each may play separately or together in college adjustment.

The hypothesis that greater racial socialization would be associated with better college adjustment concurrently and prospectively was not supported. These findings conflict with prior work indicating that racial socialization may be a significant positive predictor of academic adjustment and achievement (Bowman & Howard, 1985; Chavous et al., 2003; Neblett et al., 2006). This difference may partially be explained by the fact that these studies utilized different measures than the present investigation and had slightly different populations. Bowman and Howard (1985) utilized open ended questions examining content of race socialization messages

which may have addressed different aspects of racial socialization than the measure I used. Additionally, Neblett et al. (2006) examined social socialization and academic outcomes in young adolescents who were in middle and high school. The individuals in my study are presumably no longer living with their families, which may lessen the impact of the socialization messages on their adjustment to college. Furthermore, my findings may be influenced by the fact that my tests of the hypotheses were conservative since the racial socialization data was only collected for half of the sample.

Relationships between Racial Factors, Social Support and College Adjustment

None of these racial variables significantly predicted either the overall number of social support providers or the number of Black social support providers at either time point. Additionally, the hypothesis that larger social networks or more African American social support providers would predict better college adjustment concurrently and prospectively was also not supported. These results prevented me from investigating the primary goal of this study of testing for a possible mediational model since these component associations were not found. The lack of significant results in this study may be primarily due to problems with the measure used to assess the size and racial composition of the social network. As discussed in the methods section, in order to reduce test-taking burden, participants were limited to listing no more than six social support providers rather than the 20 in the original measure. This may have inadvertently reduced the variability of this measure and not fully captured the true scope of the size and racial composition of participants' social networks.

It is possible that artificially limiting the number of social support providers prevented me from determining how many people outside their immediate family were important sources of social support and possibly from getting an accurate view of the number of African Americans

in their social networks. Participants mainly listed members of their family in this study so having the option to record more social support providers would better test the role of the size and composition of social networks of African American students on their college adjustment experience. Additionally, this may have had a strong impact on the findings as previous research suggests that having an effective on-campus peer support network provides critical reinforcement to African American students (Guiffrida, 2005; Kimbrough et al., 1996; Utsey et al., 2000). Thus, if the social support network being represented consisted mainly of family members, it was not possible to see the effect of having a strong peer network.

Another explanation for the lack of significant social support network findings may simply be that the size and racial composition of social support networks might not be meaningfully related to any of the racial factors studied here or to college adjustment of African Americans at a PWI. Perhaps for the students in my sample, other factors like greater academic demands are more influential than the need for a large social support network in their college adjustment at PWI. Additionally, their lower centrality ratings suggest that racial factors may also have less of an effect in their transition to college since previous studies have shown that higher racial centrality is related to greater feelings of ethnic fit and institutional adjustment (Chavous, 2000). However, there is strong evidence that social support networks (especially those consisting of same-race peers) may be helpful in the adjustment of African American students at a PWI (Gloria et al., 1999; Guiffrida, 2003). As such, it is much more likely that the lack of associations between the number and race of social support providers, racial factors and college adjustment observed in the present study may be primarily due to the measurement issues discussed above.

Broad Implications

The findings presented herein extended the previous work by showing that certain racial factors, namely current racial climate and private regard, may play particularly important roles in the college transition of African American students at a predominantly White institution (PWI) relative to other racial factors, particularly for junior transfer students. Although other work has examined the role of each of these factors, none have compared as many racial factors together as done in this study. This study also contributes to the literature about the experience of African American transfer students at a PWI. It may aid in the development of intervention programs focused on establishing a positive racial climate that will ensure the successful adjustment of African American junior transfer students during these periods of transition. Since the racial environment on a college campus is generally indicative of the level of acceptance or rejection of racial diversity in a given institution (Chavous, 2005; Reid & Radhakrishnan, 2003; Solórzano et al., 2000), institutional interventions to support the improvement of the environment may be particularly helpful in the college adjustment of African American students at critical points of transition.

Additionally, the study results suggest that the total size of a social network as well as the number of African Americans in a social network may not play critical roles in the college transition at predominantly White institutions for students in my sample. However, it is important to evaluate these results in the context of the broader methodological issues. In the future, it may be helpful to think about how other types of social interactions such as the identity of the supporter (e.g. family member, peer, romantic partner), that may not be characterized as social support formally, may play a role in the college transition of African Americans. Work indicating that parental encouragement is related to better academic experiences and on-campus

peer support is critical for the adjustment of African American students reinforces the role that other types of social support may play in this process (Guiffrida, 2005; Hinderlie & Kenny, 2002; Kimbrough et al., 1996; Utsey et al., 2000). Nevertheless, it remains unclear if one type of social support source is more important than another in the college adjustments of these students.

Limitations

In addition to the methodological limitations in measuring social support discussed earlier, some additional limitations of the current study should be noted. The longitudinal timeframe of the study may have not been long enough as no prospective predictive results were found. Considering that the amount of time between T1 and T2 was only about two to six months (depending on when participants took each survey), this may not be enough time to detect a significant effect. This fact may have also contributed to the lack of significant results in regard to social support providers as prior work suggests that the building of an interpersonal relationship is a gradual and systematic process in which the depth of the relationship increases over time (Levinger & Snoek, 1972). Future studies should investigate the relationships between these variables over the course of at least one school year and ideally over the course of the student's undergraduate career as this would provide the most complete representation of their college adjustment experiences.

In terms of statistical analyses, low statistical power might have accounted for the lack of some findings for correlations and mediation analyses. Greater sample sizes will be needed in future studies especially if a large number of associations are proposed. Increasing the sample size would allow the utilization of structural equation modeling which may better represent the relationships among the variables. A further constraint on the statistical power in the current study was only collecting the racial socialization data for half of the sample. As a result, this

study did not obtain an accurate representation of the predictive influence of racial socialization on college adjustment or on the size and the racial composition of the social network of the participants in the study. However, I was still able to examine both the effect of racial socialization on the outcomes of interest while also conducting fully powered analyses for the relevant hypotheses. One final limitation is that the data were collected in different semesters; the first cohort was in the fall semester and the second cohort in spring. Those in the second semester may have had greater time to adjust to the predominantly White campus than those newly arrived in the fall thereby affecting their ratings.

Conclusions

This study added to the empirical work examining the role that specific racial factors play in the college adjustment of African American students at predominantly White institutions and provided additional evidence to the established research about the difficulties experienced by African American students at predominantly White institutions. This study also adds to the literature regarding the experience of junior transfer students who may face more difficulty successfully transitioning to a predominantly White institution. Given the recent statistics showing that 40.7% of African American students initiate their college careers at a community college (Chronicle of Higher Education, 2007) and that many large state universities in the United States operate branch campuses, understanding the adjustment of this group of students is becoming increasingly important. These findings may be used to encourage predominantly White institutions to improve their campus racial climates in order to promote the successful adjustment of African American students. Future research in this area will be integral in extending these findings to understand other ways in which these students may be assisted in persisting to graduation.

Another unique contribution of this study was the simultaneous examination of several racial factors to identify which were the most critical in the college adjustment process of African American students at a predominantly White institution. Although earlier work has linked different racial factors to adjustment separately (Harris & Molock, 2000; Hinderlie & Kenny, 2002), my study provided valuable insight into the possibility that certain factors may be more important for these students. Additionally, the findings of my study suggest that the identity characteristics of these students may be of particular consequence, as the effect of these racial factors was more significant for junior transfer students than freshman. My results point to the utility of examining the heterogeneity of African American college students in future studies in order to expand the understanding of how differences in identity may influence their adjustment to a predominantly White institution.

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Table 1: Intercorrelations, Means, and Standard Deviations among Predictor and Outcome Variables across Time Points

| | M (SD) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-------------------------------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|-----|
| 1. College Adjustment T1 | 423.50 (78.21) | -- | | | | | | | | | | | | | | |
| 2. Total Social Support T1 | 5.36 (1.13) | -.09 | -- | | | | | | | | | | | | | |
| 3. Black Social Support T1 | 4.41 (1.58) | -.12 | .62** | -- | | | | | | | | | | | | |
| 4. Previous Racial Climate T1 | 5.02 (1.46) | .03 | .16 | .16 | -- | | | | | | | | | | | |
| 5. Current Racial Climate T1 | 4.67 (1.39) | .41** | .09 | .08 | .37** | -- | | | | | | | | | | |
| 6. Centrality T1 | 4.63 (1.11) | .14 | .04 | .22* | -.002 | .12 | -- | | | | | | | | | |
| 7. Private Regard T1 | 6.10 (1.01) | .39** | .03 | .23* | .03 | .25** | .44** | -- | | | | | | | | |
| 8. Public Regard T1 | 3.29 (1.14) | .20* | -.15 | -.11 | -.09 | .17 | -.10 | .20* | -- | | | | | | | |
| 9. Racial Socialization T1 | 71.4 (13.50) | .18 | -.16 | .07 | -.16 | .01 | .27* | .32* | -.24 | -- | | | | | | |
| 10. College Adjustment T2 | 414.79 (80.27) | .72** | .04 | -.02 | .12 | .36** | .01 | .32** | .15 | .03 | -- | | | | | |
| 11. Total Social Support T2 | 5.31 (1.27) | .09 | .44** | .28** | .15 | .15 | -.09 | .05 | -.01 | -.16 | .22* | -- | | | | |
| 12. Black Social Support T2 | 4.41 (1.43) | .11 | .36** | .54** | .13 | .15 | .14 | .17 | -.05 | .03 | .14 | .68** | -- | | | |
| 13. Current Racial Climate T2 | 4.40 (1.29) | .31** | .03 | -.08 | .04 | .48** | -.16 | .12 | .26** | -.17 | .41** | .11 | .04 | -- | | |
| 14. Centrality T2 | 4.53 (1.17) | .04 | -.09 | .07 | -.04 | -.05 | .60** | .32** | -.09 | .21 | -.01 | .09 | .18 | -.19* | -- | |
| 15. Private Regard T2 | 6.04 (1.10) | .26** | .04 | .10 | .12 | .17 | .26** | .65** | .06 | -.04 | .36** | .15 | .18 | .29** | .30** | -- |
| 16. Racial Public Regard T2 | 3.40 (1.04) | .23* | -.19* | -.17 | -.05 | .13 | -.12 | .06 | .65** | -.13 | .16 | -.12 | -.12 | .38** | -.23* | .09 |

* $p < .05$. ** $p < .01$.; T1 = Beginning of the semester and T2 = End of the semester

Table 2: Summary of Multiple Regression Analysis for Concurrent Overall College and Institutional Adjustment at T1

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>College Adjustment T1</i> | | | <i>Institutional Adjustment T1</i> | | |
|----------------------------|------------------------------|---------------|----------|------------------------------------|---------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .28 | 208.70(48.67) | | .24 | 63.19 (13.52) | |
| Current Racial Climate T1 | | 20.79 (5.19) | .37*** | | 5.64 (1.44) | .37*** |
| Previous Racial Climate T1 | | -5.98 (4.82) | -.11 | | -2.89 (1.34) | -.19* |
| Centrality T1 | | -2.09 (6.61) | -.03 | | -1.88 (1.84) | -.09 |
| Private Regard T1 | | 23.49 (7.49) | .30** | | 4.81 (2.08) | .23* |
| Public Regard T1 | | 4.35 (6.03) | .06 | | 2.09 (1.68) | .11 |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

Table 3: Summary of Multiple Regression Analysis for Concurrent Overall College and Institutional Adjustment at T2

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>College Adjustment T2</i> | | | <i>Institutional Adjustment T2</i> | | |
|---------------------------|------------------------------|----------------|----------|------------------------------------|---------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .23 | 230.85 (54.24) | | .24 | 52.21 (15.55) | |
| Current Racial Climate T2 | | 20.61 (6.15) | .33*** | | 6.44 (1.76) | .36*** |
| Centrality T2 | | -1.22 (6.58) | -.012 | | -1.46 (1.89) | -.07 |
| Private Regard T2 | | 18.09 (7.29) | .25* | | 4.93 (2.09) | .23* |
| Public Regard T2 | | .85 (7.23) | .01 | | -.27 (2.07) | -.01 |
| Gender | | -9.74 (14.69) | -.06 | | -2.81 (4.21) | -.06 |

Note. *p <.05. ** p <.01, *** p <.001. One-tailed.

Table 4: Summary of Multiple Regression Analysis for Prospective Overall College and Institutional Adjustment at T2

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>College Adjustment T2</i> | | | <i>Institutional Adjustment T2</i> | | |
|----------------------------|------------------------------|---------------|----------|------------------------------------|---------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .55 | 85.76 (43.03) | | .47 | 13.96 (13.61) | |
| Centrality T1 | | -10.66 (5.40) | -.15 | | -2.44 (1.69) | -.12 |
| Current Racial Climate T1 | | 2.79 (4.55) | .05 | | 2.38 (1.42) | .14 |
| Previous Racial Climate T1 | | 4.06 (3.97) | .07 | | .79 (1.26) | .05 |
| Private Regard T1 | | 8.98 (6.39) | .11 | | 3.05 (1.96) | .13 |
| Public Regard T1 | | 1.51 (4.94) | -.02 | | -.73 (1.55) | -.04 |
| Outcome T1 | | .69 (.08) | .68*** | | .63 (.09) | .58*** |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

Table 5: Summary of Multiple Regression Analysis for Concurrent Number and Race of Social Support Providers at T1

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>Total Social Support T1</i> | | | <i>Black Social Support T1</i> | | |
|----------------------------|--------------------------------|--------------|----------|--------------------------------|--------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>B</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .05 | 4.91 (.80) | | .11 | 1.54 (1.09) | |
| Current Racial Climate T1 | | .06 (.09) | .07 | | -.03 (.12) | -.03 |
| Previous Racial Climate T1 | | .09 (.08) | .12 | | .17 (.11) | .16 |
| Centrality T1 | | -.01 (.11) | .01 | | .17 (.15) | .12 |
| Private Regard T1 | | .05 (.12) | .04 | | .31 (.17) | .20 |
| Public Regard T1 | | -.16 (.10) | -.16 | | -.17 (.14) | -.12 |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

Table 6: Summary of Multiple Regression Analysis for Concurrent Number and Race of Social Support Providers at T2

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>Total Social Support T2</i> | | | <i>Black Social Support Adjustment T2</i> | | |
|---------------------------|--------------------------------|--------------|----------|---|--------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .07 | 4.78 (.95) | | .08 | 3.45 (1.06) | |
| Current Racial Climate T2 | | .17 (.11) | .17 | | .09 (.12) | .09 |
| Centrality T2 | | .07 (.12) | .06 | | .17 (.13) | .14 |
| Private Regard T2 | | .09 (.13) | .08 | | .13 (.14) | .10 |
| Public Regard T2 | | -.20 (.13) | -.17 | | -.17 (.14) | -.12 |
| Gender | | -.25 (.26) | -.09 | | -.33 (.29) | -.17 |

Note. *p <.05. ** p <.01, *** p <.001. One-tailed.

Table 7: Summary of Multiple Regression Analysis for Prospective Number and Race of Social Support Providers at T2

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>Total Social Support T2</i> | | | <i>Black Social Support T2</i> | | |
|----------------------------|--------------------------------|--------------|----------|--------------------------------|--------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .23 | 2.27 (.95) | | .31 | 1.63(.88) | |
| Centrality T1 | | -.17 (.11) | -.15 | | .001 (.12) | .001 |
| Current Racial Climate T1 | | .08 (.09) | .09 | | .11 (.09) | .10 |
| Previous Racial Climate T1 | | .05 (.08) | .05 | | .001 (.09) | .001 |
| Private Regard T1 | | .09 (.13) | .07 | | .04 (.14) | .03 |
| Public Regard T1 | | .02 (.10) | .02 | | -.01 (.11) | -.01 |
| Outcome T1 | | .48 (.09) | .43*** | | .47 (.08) | .53*** |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

Table 8: Summary of Multiple Regression Analysis for Concurrent Social Support Providers & College Adjustment at T1

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>College Adjustment T1</i> | | | <i>Institutional Adjustment T1</i> | | |
|-------------------------|------------------------------|----------------|----------|------------------------------------|---------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>B</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .02 | 456.26 (36.04) | | .01 | 111.40 (9.79) | |
| Total Social Support T1 | | -1.93 (8.41) | -.03 | | -1.25 (2.28) | -.07 |
| Black Social Support T1 | | -5.09 (5.99) | -.10 | | -.49 (1.63) | -.04 |
| | <i>College Adjustment T2</i> | | | <i>Institutional Adjustment T2</i> | | |
| | <i>R²</i> | <i>B(SE)</i> | <i>B</i> | <i>R²</i> | <i>B(SE)</i> | <i>B</i> |
| Constant | .05 | 341.63 (32.22) | | .06 | 75.17 (9.23) | |
| Total Social Support T2 | | 15.00 (8.04) | .24 | | 5.21 (2.30) | .29 |
| Black Social Support T2 | | -1.48 (7.16) | -.03 | | -.89 (2.05) | -.06 |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

Table 9: Summary of Multiple Regression Analysis for Prospective Social Support Providers & College Adjustment at T2

Standard Regression Analysis (N =113)

| <i>Predictors</i> | <i>College Adjustment T2</i> | | | <i>Institutional Adjustment T2</i> | | |
|-------------------------|------------------------------|---------------|----------|------------------------------------|---------------|----------|
| | <i>R²</i> | <i>B(SE)</i> | <i>β</i> | <i>R²</i> | <i>B(SE)</i> | <i>β</i> |
| Constant | .53 | 57.99 (40.27) | | .44 | 14.69 (11.97) | |
| Total Social Support T1 | | 7.24 (5.99) | .10 | | 2.11 (1.89) | .10 |
| Black Social Support T1 | | .18 (4.29) | .003 | | -.29 (1.35) | -.02 |
| Outcome T1 | | .75 (.07) | .73*** | | .72 (.08) | .66*** |

Note. *p <.05. ** p <.01. *** p <.001. One-tailed.

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- 2007 **M.A., Psychology**
American University
- 2001 **B.A., Biology; Concentration in Neural and Behavioral Sciences**
Bryn Mawr College

CURRENT APPOINTMENT

- 2015 - 2016 **Psychology Postdoctoral Fellow, Substance Use/Homelessness
Rehabilitation**
VA Palo Alto Health Care System

PUBLICATIONS

- Hanley White, K., Howard, M. C., Zhong, B., Soto, J. A., Perez, C. R., Lee, E. A., **Dawson-Andoh, N.A.**, Minnick, M. R. (2015). The communication anxiety regulation scale: Development and initial validation. *Communication Quarterly*, 63(1), 23-43.
- Dawson-Andoh, N. A.**, Gray, J. J., Soto, J. A., & Parker, S. (2011). Body shape and size depictions of African American women in *JET* magazine, 1953-2006. *Body Image*, 8, 86-89.
- Soto, J. A., **Dawson-Andoh, N. A.**, & BeLue, R. (2011). The relationship between perceived racial discrimination and Generalized Anxiety Disorder among African Americans, Afro Caribbeans, and non-Hispanic Whites. *Journal of Anxiety Disorders*, 25, 258-265.

RECENT POSTER PRESENTATIONS

- Dawson-Andoh, N. A.**, & Soto, J. A. (2016, July). *Social Support and Racial Factors among African American Students*. Poster to be presented at the 4th Biennial Division 45 Society for the Psychological Study of Culture, Ethnicity, and Race Research conference, Palo Alto, CA.
- Lawson, C. T., Johnson, R., Soto, J. A., & **Dawson-Andoh, N. A.** (2015, May). *The role of racial identity in predicting academic engagement among African American college students at a Predominantly White Institute*. Poster presented at the 27th Annual Meeting of the Association for Psychological Science, New York, NY.