A Longitudinal Study: Examining the Effect of Campus Racial Climate and Sense of Belonging on First-Year African American College Students' Depressive Symptoms

by

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Abstract

There is limited quantitative evidence examining how race, sense of belonging and campus racial climate collectively affect first-year African American college students' depressive symptoms. The present study explores these associations using longitudinal data spanning 1.5 years. Findings indicate that, at the baseline assessment, African American students reported more depressive symptoms and a more hostile campus racial climate. The hierarchical regression model indicated that sense of belonging accounted for the most variance in depression symptoms at follow up when race and campus racial climate were controlled. Autoregressive effects show that the predictors were separately associated with greater depressive symptoms at follow-up. Findings are discussed using Gusa's (2010) White institutional presence as an analytical framework. Implications for how mental health professionals can support African American college freshmen are discussed.

Introduction

Within the past few decades increased efforts are being made to understand and improve college student retention in the United States. The efforts to increase college student retention are related to improving student sense of belonging and access to social support. Social support and belongingness, two common themes in retention research, are related to a first-year student's willingness and intention to remain in college (Chemers, Hu, & Garcia, 2001; Rayle & Chung, 2007). Retention, defined as continual enrollment at the same university in the fall semester of the proceeding semester (National Student Clearinghouse Research Center, 2016), varies by race. Student retention nationwide in fall 2015 was about sixty-percent at public institutions (National Student Clearinghouse Research Center, 2016). In comparison, the nationwide retention of African American students has been reported to be much lower at about forty-two percent ("Black student college graduation rates," 2005/2006). Students leave college for reasons such as lack of college preparedness, academic performance, financial need (Furr & Elling, 2002). However, social support and belongingness emerge as recurring themes in college freshmen retention research because poor "institutional fit" and failure to establish social networks explain why dropout rates are highest during the first-year of college (Furr & Elling, 2002; Barefoot, 2004). In response, many retention programs targeting first-year students involve exposing freshmen to socializing opportunities in the form of campus orientations, university clubs and organizations, as well as on-campus residential and community social events (Barefoot, 2004). While retention programming has reduced student attrition somewhat, program effectiveness is

inconsistent due to the multitude of factors that can contribute to a student's ability to adjust during their first-year of college.

The transition to college for first-year students is marked by many changes and challenges that include, but are not limited to, improving academic performance, meeting faculty expectations, increased flexibility in class schedules, less structure, navigating and managing new demands for studying, as well as identifying and navigating peer relationships (Clark, 2005). While White and African American freshmen students face the same challenges, their racial identity shapes their perception of how well they adjust socially and academically to university life. The student's racial identity also consciously and unconsciously influences their interpretation of their college experience from their unique racial lens (Anglin & Wade, 2007). Freshmen at predominantly White institutions vary in their exposure to faculty and students from various racial/ethnic backgrounds. Student views on whether the campus functions as a space that supports or discourages racial identity, racial discourse, and racial equity is dependent on their perceptions of how the university's policies and programs endorse diversity, as well as the racial composition of the student body and staff (Harper & Hurtado, 2007). As such, student perceptions of the campus climate have been shown to vary by race (Sue et al., 2007; Chao, Mallinckrodt, & Wei, 2012).

It appears predominantly White institutions with greater racial diversity show no or less racial differences in perceptions of campus racial climate (Edman & Brazil, 2009). However, students of color at PWIs where racial diversity is much lower, generally report more negative perceptions of campus racial climate in comparison to White students. African American students report the most negative perceptions of campus racial climate (Hughes, Anderson, Cannon, Perez, & Moore, 1998; Ancis, Sedalack, & Mohr, 2000). This remains true even in

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comparison with other racially underrepresented college students such as Asian and

Hispanic/Latino Americans (Reid & Radhakrishnan, 2003). The negative perceptions that

African American students have are, at least in part, due to the reputational legacy of racism at

predominantly White institutions. Moreover, whether African American students perceive

themselves as connected with faculty—particularly White faculty who comprise academia's

majority—also influences their perceptions of the campus racial climate (Guiffrida & Douthit,

2010).

Guiffrida and Douthit (2010) explain that African American students may not connect as

well with White faculty either because they may not perceive White faculty as being realistic

role models in comparison to African American faculty, or they perceive White faculty as

culturally insensitive (e.g., making stereotypical remarks, generalizing African American

experiences, and excluding or not acknowledging African American perspectives in class).

African American students also report experiences of social dissatisfaction, racial segregation, a

lack of cultural representation in campus activities as well as a lack of conversations surrounding

race-relations on campus (Harper & Hurtado, 2007). These factors, coupled with decreased

social support, can leave first-year African American students to experience and perceive more

racial discrimination from faculty, staff, and teaching assistants (Ancis et al., 2000). As a result,

these students are at risk of developing depression, one of the most prevalent mental health

issues among college students that can persist overtime (Cheng, Cohen, & Goodman, 2015;

Zivin, Eisenberg, Gollust, & Goldberstein, 2009). A bi-directional relationships between

depressive symptoms and perceptions of campus racial climate or sense of belonging is

plausible, yet has scarcely been considered in existing research. Although depression is a

common measure used to study college students, limited research has examined its relation to

perceptions of belongingness and perceptions of campus racial climate among first-year African American college students.

Campus climate research is still an emerging field of study since few longitudinal studies have been reported and most of the research are correlational, qualitative studies, or literature reviews. In recent decades there has been an increase in experimental designs that examine either campus racial climate (CRC) or sense of belonging (SB) separately. To date, however, there has been only a few studies to examine both measures together (e.g., Hurtado & Carter, 1997; Johnson et al., 2007; Walton & Cohen, 2011). Additionally, experimental designs that longitudinally examine both measures together in relation to depressive symptoms are scarce. Therefore, a need exists to expound this area of research with longitudinal studies. Furthermore, students who report negative experiences of campus climate and who experience stress related to their racial identity show poorer mental health (Byrd & McKinney, 2012), which can have deleterious effects on their GPA and academic performance (Chavous, Harris, Rivas, Helaire, & Green, 2004). Therefore, by understanding how CRC and SB effect African American students' depressive symptoms in their first-year and throughout college, researchers and mental health professionals can make more strides to explore strategies for assisting African American students experiencing race-related stress.

The present study has several aims. The first is to examine the associations between race and perceptions of sense of belonging, perceptions of campus racial climate as well as baseline levels of depressive symptoms among first-year college students at a predominantly White institution. The second is to use a longitudinal design to examine whether campus racial climate and sense of belonging are associated with changes in depressive symptoms over at a 1.5 year period. The final aim is to discuss the implications of the findings for mental health professionals

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working with undergraduate African American students, and to suggest directions for future research.

<div align="center">**Literature Review**</div>

Understanding Racism and the Theoretical Framework White Institutional Presence

Despite the constant issues with racism in the United States, there has been efforts to dismantle racism at various micro and macro levels. In the past few decades, efforts to address racism within higher education institutions by academics have been to increase discourse about topics such as racism, discrimination, multiculturalism, and diversity among other topics. There are more than four thousand two-year and four-year public and private higher education institutions in the United States (National Center for Education Statistics [NCES], 2006). Historically Black College/Universities (HBCUs), which provide culturally specific education and development for African American students, comprise a mere two percent of these higher education institutions. Therefore, the reality is that most African American students are more likely to attend a predominantly White institution (PWI), which can increase their likelihood of perceiving and experiencing racism, feeling disconnected from their college campuses, and feeling marginalized.

University administrators, faculty, and students who advance multiculturalism and diversity seek to address how to make higher education institutions equitable for all students, and particularly students of color. Findings from campus racial climate research illustrate that factors such as college adjustment, underrepresentation, and interracial interactions are some reasons why students of color perceive and experience discrimination on campuses (Furr & Elling, 2002; Johnson et al., 2014; Kuh et al., 2008; Negga et al., 2007). However, to understand the

complexity of a university's racial climate affects students, it is essential to discuss how racism

functions at individual and systemic levels throughout college campuses.

The term *racism* on college campuses is often understood and used when discussing

explicit negative or hostile interpersonal incidents between students of different races. For

instance, when one student calls another a racial slur, or when one student assaults another

because of their race. However, the term *racism* is more complicated and encompasses more than

explicit racial messages. Racism can manifest when there is systemic power to enact changes

that provide advantages to some races and, either intentionally or unintentionally, disadvantages

people from another race (Williams, 1999). Racism also involves ideologies (e.g., racial

prejudice) and actions (e.g., racial discrimination), and although these are related, they have

distinct differences. *Racial prejudice* refers to having unfavorable or negative preconceived

opinions or feelings toward an individual or group of a race/ethnicity (Kuklinski et al., 1997).

Using African American students as an example, some racial prejudices include notions such as

that African American students are only accepted into universities because of Affirmative Action

(and not because they are capable or qualified students); or that African American students are

less intelligent and only in school because of their athletic abilities. *Racial discrimination* is an

action whereby an individual or group is treated unfairly because of their perceived

race/ethnicity. For example, requiring students to read material that focuses predominantly on

White populations and simultaneously excluding readings and perspectives from people of color.

Jones (1997) asserts r*acism* is both the belief (e.g., prejudice) that one race or some races are

"superior" to other races, who are deemed "inferior," as well as the implementation of policies to

uphold such beliefs at a systemic level (e.g., discrimination) (as cited in Utsey, Ponterotto,

Reynolds, & Cancelli, 2000, p. 72). The earlier example of people of color's experiences being

excluded from assigned class readings, and by default the inclusion of reading material that focuses on Whites, is one example of how institutional racism can give and deny advantages to students based on race. Institutional racism leads students and faculty to consciously and unconsciously adopt racial prejudices and exhibit discriminatory behaviors that inevitably impact the campus's racial climate.

Many college campuses are spaces where students and faculty from racially diverse backgrounds have the opportunity to gain exposure to and engage in interracial interactions that foster cultural appreciation or reduce racial prejudice through education about diverse human experiences (Gassner & McGuigan, 2014; Radloff, 2010). However, since American universities are predominated by White students and faculty, African Americans students and other students of color learn and socialize within academic spaces where their cultural values are either rejected, unrepresented, or underrepresented. Thus, the normative values of White culture inevitably becomes the norm throughout academic spaces at predominantly White institutions. The ubiquity of these norms, coupled with the exclusion or limited or negative representation of people of color's perspectives, can lead students of color to perceive the university as racially discriminatory (Smith, Allen, & Danley, 2007). Furthermore, the university's norms, values, and practices are not usually described as embedded in the White middle class culture. Therefore, it is necessary to identify some attributes of white middle-class cultural norms embedded in predominantly White institutions to understand the impacts on White and African American students' perceptions of racism.

White Institutional Presence. White Institutional Presence (WIP) is a theoretical framework created by Gusa (2010) that "focuses on the White normative messages and practices that are exchanged within the academic milieu" (p. 471). Gusa explains that WIP is a useful

framework for examining and understanding "White" behaviors and decisions at predominantly White institutions within the American context. Gusa's framework is made up of four attributes: White ascendancy, monoculturalism, White blindness, and White estrangement.

White ascendancy, the primary attribute of WIP, and refers to thoughts and behaviors that promote senses of White superiority, entitlement, dominance over racial discourse, and White victimization. Gusa asserts these thoughts and behaviors generated from Whites' historical position of power and dominance. According to Gusa (2010), White ascendancy is evident when White students exhibit beliefs or behaviors that convey they have a *greater* right to be in college and possess greater skill sets than students of color (i.e., White superiority); or that their academic spaces should demonstrate and maintain White beliefs and superiority (i.e., White entitlement). White ascendancy is evident when White students challenge diversity requirements, but not requirements from other subjects such as STEM or social sciences (i.e., dominance over racial discourse); and when their assert their opportunities for success are being "taken away" from them by students of color through Affirmative Action (i.e., White victimization).

WIP's second attribute is *monoculturalism*, which refers to the expectation of students to conform to one scholarly worldview. According to Gusa, the monoculturalism within universities simultaneously promotes Western ideology and scholarship as well as academic and social exclusiveness. The third attribute of WIP is *White blindness*. Like color blindness, White blindness in a university context would allow White students and faculty to remove race as a legitimate argument for why their behaviors or thoughts can be racially discriminatory (Gusa, 2010). Thus, widespread White blindness at a PWI can result in White faculty and students to think and behave in manners that judge or misrepresent African American students, even if their actions are unconscious and unintentional. Lastly, Gusa (2010) claims that White institutional

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presence is maintained through *White estrangement*. PWIs typically have small African American populations, which makes it difficult for many White students to gain extensive exposure to this group of students. Consequently, White students may worry about exhibiting racist behaviors, and it is this discomfort, ignorance, or denial—caused by a lack of experience and cultural competence—that makes it difficult for them to navigate interracial interactions. Gusa claims this worry about cross racial interactions is more likely the case for White students who are exposed for the first time to diverse campus settings.

The present study uses White institutional presence as an analytical framework to illustrate how PWIs are in fact racialized spaces where White and western worldviews dominate the academic and social cultural norms at the majority of universities in the United States. WIP captures how the behaviors and thoughts of White students and faculty dominate educational, intellectual, and social discourses at PWIs. Thus, racializing their behaviors and thoughts as "White," as explained through the WIP attributes, provides insight into a component of interracial exchanges between White and African American students that is not often examined when discussing how mental health outcomes, perceptions of belongingness, and climate impact African American college students. Additionally, WIP provides context for how African American students function within universities where their values are not the norm, as well as how they respond to Whiteness. Discussing PWIs as racialized spaces allows therapists to better comprehend the experience African American students have as an underrepresented population on college campuses. With this framework the present study will also be able to comprehensively explain the similarities and differences in how White and African American students experience race relations, depressive symptoms, and perceive themselves as belonging within predominantly White institutional settings.

Campus Racial Climate at Predominantly White Institutions

Hurtado and colleagues (1998) define campus racial climate as "how students, faculty, and administrators perceive the institutional climate for racial/ethnic diversity, their experiences with campus diversity, and their own attitudes and interactions with different racial and ethnic groups" (p. 281). Hurtado et al. (1998) assert that campus racial climates (CRC) are not only affected by governmental and institutional policies, programs, and initiatives, but also by sociohistorical forces. Sociohistorical forces involve "an institution's historical legacy of inclusion or exclusion of various racial/ethnic groups, its structural diversity in terms of numerical representation of various racial/ethnic groups, the psychological climate of perceptions and attitudes between and among groups, [as well as] the behavioral climate dimension, characterized by intergroup relations on campus" (p. 281). Collectively, these sociohistorical forces and the implementation of programs and policies that affect diversity establish a campus racial climate that, for better or worse, also influences how faculty and students perceive and engage with each other on campus.

Student and faculty perceptions of racial climate effect whether inclusive policies and programs are implemented on campus. What is consistent across the literature is that there are disparities between African American and White students' perceptions of campus racial climate as well as in their support for policies and education that promote multiculturalism and diversity. African American students are more supportive of multiculturalism efforts (e.g., policies, courses, workshops) and conversations surrounding these topics than White, Hispanics/Latinos or Asian students (Harper & Hurtado, 2007; Miller, Anderson, Cannon, Perez, & Moore, 1998; Rankin & Reason, 2005). Although programs and policies pertaining to diversity and

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multiculturalism affect the institution on a macro-level, they also contribute to African American students' perceptions of CRC. Factors that affect their perceptions of CRC at the individual level include, but are not limited to, the university and faculty's efforts to promote multiculturalism and diversity (Hughes et al., 1998), microaggressions and related forms of interpersonal discrimination (Solorzano, Ceja, & Yosso, 2000), as well as faculty and peer interactions (Cabrera, Nora, Terenzini, 1999; Torregosa, Ynalnez, & Morin, 2015).

The various degrees to which college students support and promote multiculturalism indicates that perceptions of racial climate among students are not universal. According to Worthington, Navarro, Loewy, and Hart (2008), regardless of the student's race, students who are *unaware* of racial tension or privilege are also more likely to have positive perceptions of the racial climate, campus climate in general, as well as have positive views of the extent to which they perceive their campus as open, respectful, friendly, and communicative. On the other hand, regardless of the student's race, those with negative perceptions of the campus climate are less satisfied with their university (Fischer, 2007). Additionally, studies demonstrate that White students consistently report feeling less racial tension and generally report having lesser negative perceptions of campus racial climates than students from racially underrepresented populations (Ancis et al., 2000; Harper & Hurtado, 2007). In comparison, students from other racial backgrounds report more negative perceptions of a university's general and racial climate, especially African American students (e.g., Museus, Nichols, & Lambert, 2008; Rankin & Reason, 2005; Reid & Radhakrishnan, 2003). One reason for this is that African American students experience racial microaggressions amongst their peers and within classes.

Racial microaggressions are brief intentional or unintentional verbal, behavioral, and environmental cues that convey negative, derogatory, or hostile racial insults that target a person

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or group (Sue et al., 2007). Sue and colleagues (2007) identify three forms of microaggressions: *microinsults*—comments that are demeaning, rude, or insensitive to the target's racial heritage or identity; *microassaults*—explicit derogatory verbal or behavioral attacks that are purposefully meant to demean others thorough name-calling, avoidant behavior, or discriminatory actions; and *microinvalidations*—comments that exclude, invalidate, or deny the thoughts, feelings, and experiences of a person of color. Harwood, Hunt, Mendenhall, and Lewis's (2012) qualitative study illustrate how subtle forms of racial prejudice microaggressions lead students of color enrolled in PWIs to feel uncomfortable, confused, and irritated. Confronting racial comments or jokes is difficult when the individual making the remark is a friend or roommate since microaggressions are subtle. As a result, students of color often question whether they are "too sensitive" (Harwood, Hunt, Mendenhall, & Lewis, 2012). The perception of being overly sensitive makes it difficult for students of color to decide whether to report how they are being treated, especially if they believe no one will take them seriously. In Harwood et al.'s (2012) study, students of color perceived residence hall staff as minimizing or invalidating their reports about racial slurs being said or written on residence hall property, and reported that racial microaggressions continued even after they asked the perpetrating students to stop. Students of color will use approaches that are least confrontational (e.g., ignoring) even after they express their dissatisfaction about comments to roommates, other students, or university staff (Harwood et al., 2012). However, ignoring microaggressions does not mean that students are no longer distressed.

More than 1 in 4 African American students enrolled in PWIs who were receiving counseling services reported higher levels of perceived racial discrimination distress (Chao, Mallinckrodt, & Wei, 2012). Since they spend much of their time with peers and instructors in

classrooms, discrimination is often perceived to occur in this setting because it is where they tend to be more observant of when racial discrimination happens (Marcus et al., 2003). Students perceive more discrimination from instructors than from their peers or the campus itself (Marcus et al., 2003). There are racial differences in what discrimination or prejudice is perceived, with Whites students being unaware of subtle prejudices and noticing only blatant racial prejudice (Salvatore & Shelton, 2007). Although African American students may be more equipped than White students to continue cognitive functioning tasks after witnessing overt racial prejudice, they still have difficulty—at least in completing cognitive tasks—when the racial prejudice is ambiguous (Salvatore & Shelton, 2007).

If African American freshmen students continue to feel distressed because they are treated differently, this can lead to poorer academic performance that can affect their grade point average (GPA). African American college students not only report the highest levels of differential treatment, but also report that differential treatment typically occurs by both peers and professors in class settings (Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan, & Andrews-Guillen, 2003). There is evidence that the GPA of African American students are most impacted by interactions with peers and faculty members (Cole, 2010). GPA is significantly associated with peer involvement, student-faculty interactions, and accessibility cues (e.g., a student's perceptions and experiences within the classroom that indicate a faculty is open to assisting students outside of class) for racially underrepresented students such as African Americans (Cole, 2010). There is also evidence suggesting both that the academic performance of students from racially underrepresented backgrounds is negatively influenced by faculty interactions in which the quality and adequacy of the student's work is assessed (Cole, 2010). Therefore, it is important that freshmen African American students perceive faculty positively.

Freshmen students are more likely to report being motivated and confident in their academic abilities when they perceive faculty members as being respectful and approachable in the class room (Komarraju, Musulkin, & Bhattacharya, 2010). On the other hand, students who feel estranged from faculty and perceive faculty as uninterested in them or their learning also appear to experience a lack of motivation (Komarraju et al., 2010). First-year African American students attending small, less selective, predominantly White institutions report fewer faculty interactions than African American students attending a HBCU or a larger or highly selective institution (Hurtado et al., 2011). It is possible the limited faculty interactions are related to receiving less feedback on their assignments, which in turn, could lead to them struggling academically and experiencing academic stress (Cole, 2010). Academic stress is negatively associated with a student of color's academic progress as well as their intention to return past the first and second year of college (Johnson, Wasserman, Yildirim, & Yonai, 2014). Moreover, negative perceptions of campus racial climate increase the likelihood of African American students leaving a college (Fischer, 2007). If African American freshmen don't feel supported by peers and faculty, are not performing well academically and experience racial discrimination, the combination of this stress can place them at risk of developing mental health issues.

In general, anxiety, depression, stress management, and uncertainty about the future are common concerns among students who do not report experiencing racial discrimination. However, students with high levels of perceived racial discrimination distress also present with higher levels of these problems (Chao et al., 2012). There's sufficient empirical evidence to assert that both perceiving and experiencing discrimination is related to adverse mental and physical health problems such as more negative psychological responses, heightened physiological stress responses, greater participation in unhealthy behaviors, and reduced

participation in healthy behaviors (Pascoe & Smart Richman, 2009; Dennhart & Murphy, 2011; Pieterse, Carter, Evans, & Walter, 2010). The impact of racial discrimination is severe because racism is internalized, and can lead African American students to have lower self-esteem and feel overconcerned with perfectionism (Chao et al., 2012). Perceiving racial discrimination is associated with African American college students facing common interpersonal concerns (i.e., ability to make and maintain friends or peer relationships, worrying about dating); physical health and sleep problems; and worrying about tasks related to their academic performance (i.e., time management, study skills, class workload) (Chao et al., 2012). Experiencing this race-related stress during the first-year of college can be the onset of depressive symptoms in freshmen African American students.

Depression among Students attending Predominantly White Institutions

Depressive symptoms can affect whether students dropout and re-enroll in their second year because symptoms such as depressed mood, loss of energy, diminished ability to think or concentrate (DSM-5, American Psychiatric Association [APA], 2013), make it more difficult for students to remain motivated to start or complete their classwork. Due to their failure to complete or submit quality work, students with depressive symptoms are more likely to experience greater academic stress. African American students who attend either HBCUs or PWIs report more academic stress than White students who attend PWIs, indicating that the type of institution is associated with depressive symptoms among African American students (Negga, Applewhite, & Livingston, 2007). According to Boyraz, Horne, Owen, and Armstrong (2016), freshmen African American college students experiencing depressive symptoms in their first semester have a lower likelihood of enrolling in school for their second year. Boyraz et al. (2016) also found that African American students are more likely to have lower GPAs in their first-year, which

increases their likelihood of dropping out during their second year of college regardless of whether the type of institution they attend is a HBCU or a PWI. Furthermore, they noted that the significant differences in GPA among African American students at either institution type suggests these students have more academic difficulties at PWIs. Research indicates that social support, being the first to attend college, and experiencing racial discrimination are several reasons for why African American students at PWIs experience more academic difficulties.

Like many White college students, college students from racially underrepresented groups are motivated to attend college enhance their personal and career interests (Dennis, Phinney, & Chuateco, 2005). The National Center for Education Statistics (2010) reports that 45% of all African American students are first generation college students. Although the students confident in their ability to perform well academically show greater academic performance (Chemers et al., 2001), first-generation students can have stress and doubts about performing well academically. Additionally, the transition to college for many first-year students is also marked by losing familial and peer support (e.g., attending a college away from family and friends), and adjusting to the new demands of college life (e.g., studying, rebuilding social networks, and less structure in the class schedule). Since African American students enrolled in PWIs report less social support (Negga et al., 2007), they are susceptible to developing depressive symptoms. Although the support most accessible to first-year students, poor roommate relationships can exacerbate depressive symptoms.

Moreira, Miernicki, and Telzer (2016) found co-rumination, the act of dwelling on negative feelings and events, is associated with depressive symptoms for students who have poor roommate relationships. This is a likely reason for the onset of depression because preoccupying one's mind with negativity is likely to lead to symptoms such as depressed mood and feelings of

agitation or worthlessness (DSM-5, APA, 2013). Self-esteem also accounts of a considerable portion of the variance between depressive symptoms and co-rumination (Moreira et al., 2016). Additionally, general optimism about life is related to more social support, as well as smaller increases in freshmen's stress and depressive symptoms during the first semester (Brissette, Scheier, & Carver, 2002). This suggests how important peer relationships and social support are to students in their freshmen year. These academic and social transitions, which involve a loss of social support, render many African American students feeling stressed and vulnerable on campus while they attend predominantly White Institutions. Although having limited or low quality social support and stressing about their capacity to obtain a degree, experiences of racial discrimination also contribute to African American students' depressive symptoms (Banks, 2010).

Major events, daily discrimination, and perceiving racial discrimination are all associated with depressive symptoms in young adults (Taylor & Turner, 2002; Chen, Cohen, & Goodman, 2015). Moreover, there is evidence of significant racial differences in the exposure of social stress experienced among young adults (Taylor & Turner, 2002). Examining race and stress are important to understanding the trajectory of depressive symptoms from adolescence to young adulthood. Brown, Meadows, and Elder (2007) used data from the National Longitudinal Study of Adolescent Health—a large, nationally representative sample of adolescents and young adults—to explore the relationship between stress and depressive symptoms as well as examine whether depressive symptoms increased or decreased longitudinally. Several important findings arose from Brown et al.'s (2007) study in regards to socio-economic status (SES), gender differences, and race/ethnic differences. SES, determined by the parent's highest level of education, showed no effect on the growth of depressive symptoms in either African Americans

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or Whites. However, their study found that higher SES was associated with fewer depressive symptoms for African American and Whites of either gender, with lower SES being associated with more depressive symptoms. However, African American young adults raised in higher SES families report more racial discrimination than either high SES White students or from lower SES African American students (Cheng et al., 2015). Therefore, even though being from a higher SES family can serve as a protective factor to African American young adults experiencing depressive symptoms, their higher SES status can simultaneously expose them to environments in which they will perceive and experience racial discrimination. For African American freshmen, this greater exposure to racism is because they attend universities where they not only are an underrepresented population, but also engage in more social exchanges with White faculty and students who inevitably convey racially insensitive thoughts or behaviors.

Swim and colleagues (2003) found that African American college students report experiencing racial discrimination as often as once every other week, typically in intimate social gatherings among peers, rather than overt discrimination in public places. Prelow, Mosher, and Bowman (2006) found that African American student experiences with racial discrimination on campus is positively associated with depressive symptoms, and that the severity of their symptoms increase the more they perceive racial discrimination. Prelow and colleagues (2006) also found that a lack of social support partially explains the detrimental psychological impact of racial discrimination on African American students. These students lose social support either through isolating themselves from that support, or the members providing that social support simply do not know or understand how to respond to the student's race-related stress. Which, in turn, could result in the African American student isolating others in response to their racial experience not being recognized or understood. African American students are likely to adopt

avoidant coping strategies in response to racial discrimination (Utsey, Ponterotto, Reynolds, & Cancelli, 2000). Not only does this kind of vulnerability and perceived or actual loss of support make these students susceptible to experiencing depressive symptoms in their first-year of college, but also illustrates the unique challenges African American students' face that can lead to the onset of their depressive symptoms.

Fortunately, there is some evidence that African Americans' depressive symptoms can decrease. Brown and colleague's (2007) study found that depressive symptoms declined longitudinally for both White and African American adolescents transitioning to young adulthood. Furthermore, the depressive symptom trajectory of African Americans converged with all other racial groups during the transition to young adulthood except for with Whites. White young adults consistently report lower levels of depressive symptoms than African American young adults at baseline as well as overtime. However, this study found no significant racial or gender differences in the rate of decline of depressive symptoms between Whites and African Americans. Their study provides further evidence that racial differences exist during young adulthood. Does this mean African Americans are simply more depressed at this stage of their lives? Brown and colleagues explain how stressful life events predicted the level of depressive symptoms for African American females and for males of all racial groups. However, Brown et al. also found that much of the change in African American males' depressive symptoms over time appears to be due to stressful events. These symptoms could be due to their use of maladaptive copings skills, and difficulty finding social support that can reinforce whether they matter on campus.

Sense of Belonging among Students attending Predominantly White Institutions

A student's sense of belonging involves the extent they acquire social resources, the extent they perceive they have successfully integrated into their university's campus, and their satisfaction with the university. Studying sense of belonging provides researchers with knowledge about what academic circumstances and social interactions enhance students' identification and affiliation with their university (Hurtado & Carter, 1997). Social interactions with peers and faculty are vital to first-year students' successful transition to college and contribute to their perceptions of whether they believe they are a "good fit" for the university. Studies with predominantly White student samples indicate that peer and academic support, more interactions with peers and faculty, feeling comfortable in class environments, as well as feeling valued and supported by faculty are common themes affecting sense of belonging (e.g., Hausmann, Schofield, & Woods, 2007; Hoffman, Richmond, Morrow, & Salomone, 2002; Pittman & Richmond, 2008). These themes also emerge in studies with racially diverse samples.

Johnson and colleagues (2007) found that regardless of the student's racial/ethnic background, they have a stronger sense of belonging when they experienced better academic and social transitions to college. Johnson et al. (2007) referred to *academic transitions* as the student's perception of how easy it is to form study groups, to attain academic assistance when needed, and to communicate with faculty/staff outside of class. Freshmen are more likely to perceive themselves as belonging at their university when they live on campus, are engaged in their course work, and are satisfied with their university experience (Thompson, Orr, Thompson, & Grover, 2007; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). On the other hand, students who struggle academically during their first semester of college report higher stress as well as lower levels of goal-setting, time management, and sense of belonging (Thompson et al., 2007). S*ocial*

transitions referred to the students' perception of how easy it is to make new friends, and to get to know peers and roommates in their residence hall (Johnson et al., 2007). Since students of any racial/ethnic background report a stronger sense of belonging when they perceived their residence hall as accepting and tolerating of diverse backgrounds (Johnson et al., 2007), assisting both White and African American freshmen students with establishing peer relationships that can later be supportive and serve as a buffer to the struggles they will experience.

Research suggests that although similar factors appear to influence perceptions of sense of belonging among both White and African American college students, there are additional race-related factors that influence how African American students determine their institution fit. Peer support affects African American freshmen's social and academic transitions because it is through these peer exchanges that they receive feedback that shapes their belief on whether, and to what extent, they are valued members on campus. For first-year African American students peer support is associated with feeling connected to the campus (Rayle & Chung, 2007; Walton & Cohen, 2007); perceiving themselves as respected and valued members in the classroom (Booker, 2007; Hausmann et al., 2007); and increased sense of belonging throughout their first-year (Hausmann et al., 2007). However, first-year African Americans report less perceived sense of belonging in comparison to White students (Johnson et al., 2007). Johnson and colleagues (2007) found that students from all racial/ethnic groups are far more likely to report stronger senses of belonging when they have positive perceptions of the campus racial climate. Therefore, it is important to understand contextually how African American students perceive they belong on campuses as well as what attributes of university life positively and negatively influence these perceptions.

African American students who feel a greater sense of belonging to their campus exhibit better psychological adjustment (e.g., self-worth, social acceptance, scholastic competence) during their freshmen year (Gummadam, Pittman, & Ioffe, 2016). However, the African American students at PWIs who do not feel connected to their university may have a strong ethnic identity that serves as a protective factor in the face of negative psychological adjustment (Gummadam et al., 2016). Furthermore, closer relationships with faculty are associated with African American students having a greater sense of belonging and greater satisfaction with their college (Fischer, 2007). Booker (2007) found that African American students feel a stronger sense of belongingness and report more positive experiences when they are actively involved in class discussions and can share their ideas. In contrast, Booker also found that African American students' classroom experiences are less enjoyable when they have little to no opportunity for class discussions, are spoken to condescendingly, or perceive the faculty as less caring. Classroom experiences and engagement during the first-year influences their sense of belonging, which effects African American students' commitment to the university, their intention to persist, and whether they do persist through college (Hausmann, Ye, Schofield, & Woods, 2009; Kuh et al., 2008). Therefore, the environments that enhance or diminish freshmen African American students' closeness to their campus can impact whether these students remain enrolled and complete their undergraduate education.

Feeling prepared for a campus's social environment has a negative direct effect on whether freshmen students of color noticed racism, suggesting that they may have attended predominantly White high schools that likely prepared them for academic, social, and campus life at PWIs (Johnson, Wasserman, Yildirim, & Yonai, 2014). Despite having this preparation or not having it all, racist encounters increase students of color's stress in academic environments

and reduce their feelings of belonging on campus, which in turn, influences their commitment to the university and their decision to remain in school (Johnson et al., 2014). Although college adjustment has been found to explain about one-third of student retention (Nordstrom et al., 2014), involvement on campus and experiences of racism can affect how African Americans students adjust and their willingness to remain in school during their first-year (Furr & Elling, 2002).

The present study seeks to examine the effect of campus racial climate and sense of belonging on the depressive symptoms of first-year African American college students. Therefore, the following questions guided this research inquiry: (1) Does race predict the depression levels of first-year students at a PWI? (2) Does race predict sense of belonging among first-year students at a PWI? (3) Does race predict first-year student perceptions of campus racial climate at a PWI? (4) Do perceptions of campus racial climate predict sense of belonging among first-year students at a PWI? (5) Does race predict depression at Time 2 (T2) among first-year students at a PWI, controlling for prior levels of depression (T1)? (6) Does perception of campus racial climate predict depression at Time 2 (T2) among first-year students at a PWI, controlling for prior levels of depression (T1)? (7) Does sense of belonging predict depression at Time 2 (T2) among first-year students at a PWI, controlling for prior levels of depression (T1)?

Method

Participants and Design

Time 1. Participants included college students from a Midwestern university in which the total student population was nearly 43,000 at the time this study was conducted. Fifty-one percent of the total student population was female, and 73% of the student population were White while only 3% were African American. The present study's analytic sample included 150 first-year college students. Table 1 illustrates descriptive statistics and averages for the predictor and outcome variables at Time 1 (T1) and Time (T2) by race. 91% of participants reported not being Hispanic, 3% reported being Hispanic, and 6 participants did not indicate if they were Hispanic. As indicated in Table 1, more than half of the analytic sample identified as female (57%) and as White (or European American; EA, 55%), and 45% identified as either African American (AA), Black, or another African nationality.

Time 2. Inclusion criteria at baseline was consistent at follow-up. Follow-up surveys were received from 133 first-years students (89%) who completed surveys one-and-a-half years later at Time 2 (T2). 41% identified as either AA or another African nationality, and 59% identified as White or as being part of another European nationality. At T2, females comprised 58% of the analytic sample, and males comprised 42%.

"Approval was obtained from the relevant institutional review board for all aspects of this research. All first- and second-year AA students and an equally sized stratified random sample of first- and second-year EA students were initially invited to participate by mailing information about the study. EA students without a parent who had graduated from college (first generation)

were oversampled to ensure that race and parent education were not confounded. Recruitment was stopped when the target sample size of 150 students had enrolled in the study. The initial assessment (T1) took place in the clinical research unit of an on-campus university hospital in 2012. During the study visit, physiologic measures were taken by researchers and nursing staff, and self-report measures were administered on a laptop computer. Respondents received $75 for participation. Out of the 150 students in the baseline sample, 133 (89%) also participated in a brief follow-up survey assessment (T2) administered 1.5 years later, for which participants received $15" (Fuller-Rowell et al., 2016, p. 166).

Procedure

The present study aimed to investigate the relationships between race, sense of belonging, campus racial climate, as well as the baseline and follow-up depression levels of first-year African American and White college students at a Midwestern predominantly White institution. Cross-sectional regression analyses were run to model the associations race had with depressive symptoms, perceptions of sense of belonging, and perceptions of campus racial climate at one time-point (T1), respectively. An additional cross-sectional analysis was run to examine the association between campus racial climate and sense of belonging at T1. To test the final three research questions, a hierarchical regression analysis was run to show whether and how much the predictors (race, campus racial climate, sense of belonging) separately or collectively explained the variance in depressive symptoms 1.5 years later at follow-up (T2), respectively. Three models were tested in predicting depression scores, controlling for the previous predictor(s) in the subsequent models (see Table 3). The hierarchical regression analysis also controlled for autoregressive effects (e.g., first-year students' depressive symptom scores at T2 regressed on depressive scores at T1). Participant age, gender, and maternal parent education were controlled

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throughout all analyses. Missing data items in the campus racial climate, sense of belonging, and depression measures for participants at T2 were estimated using a single imputation method.

Measures

Campus Racial Climate. Campus racial climate was measured using two constructs: school climate stress and campus social climate. *School climate stress* was assessed using the six-item scale from the Cultural Attitude and Climate Questionnaire (Ancis, Sedlacek, & Mohr, 2000), in which students reported their perceptions of racial tension in the classroom and across campus. Racial tension items included "interracial tensions in the classroom," and "racial conflict on campus." *Campus social climate* was assessed using an abbreviated version of the Minority Status Stress Scale's social climate stresses factor (Smedley, Myers, & Harrell, 1993), in which only six of the original 11 items of that factor were used (see Appendix A). For this measure, students reported stresses based upon "general" student stress as well as stressed perceived from their racial/ethnic lens. Campus social climate items included "having very few students of my race in my classes," and "the university lacking concern and support for the needs of students of my race." The original agree-disagree response format for the racial tension scale was modified to the format of the campus social climate due to this study's focus on assessing the perceived stressfulness of the campus environment. Responses for both assessments were coded based on a six-point scale ranging from "does not apply" (coded as 0) to "extremely stressful" (coded as 5), with higher scores indicating that participants perceived more stress and racial tension. This scale had good internal consistency at T1 ($\alpha = .90$) and T2 ($\alpha = .93$) using the imputed data. Time 1 and Time 2 had a positive and significant correlation ($r = .75$, $p < .01$).

Sense of Belonging. Sense of belonging assessed the extent to which students felt comfortable and pleased with attending the college, as well as if they liked the social

environment. This construct was created by using six items taken from various measures and slightly modified to create a sense of belonging construct. Two are items Walton and Cohen (2007) used to measure *belonging uncertainty* (E.g., "When something bad happens, I feel that maybe I don't belong at [college]" was reverse-coded; "I feel that I belong at [college]"). Two are items Woosley (2003) used to measure social adjustment (e.g., "I fit in well at this college"; "I am pleased about my decision to attend this college"). The last two are items (e.g., "I am uncomfortable about being different from others at this college," reverse-coded; and "I like the social environment at this college") also measured student perceptions of their social environment. Responses are coded based on a seven-point scale ranging from "Strongly Disagree" (coded as 1) to "Strongly Agree" (Coded as 7), with higher scores indicating that participants felt they belonged on campus. This scale had good internal consistency at T1 (α = .77) and T2 (α = .78). Time 1 and Time 2 were positively correlated (r =.54, p < .01).

Depression. Depression was assessed using the 21-item Beck Depression Inventory—II (BDI-II; Beck, Steer, & Brown, 1996), in which students reported on the extent they experienced depressive attitudes and symptoms. The attitudes/symptoms included: (1) Sadness, (2) pessimism, (3) past failure, (4) loss of pleasure, (5) guilty feelings, (6) punishment feelings, (7) self-dislike, (8) self-criticalness, (9) suicidal thoughts or wishes, (10) crying, (11) agitation, (12) loss of interest, (13) indecisiveness, (14) worthlessness, (15) loss of energy, (16) change in sleeping pattern, (17) irritability, (18) changes in appetite, (19) concentration difficulty, (20) tiredness or fatigue, and (21) loss of interest in sex. Responses were coded based on a four-point scale ranging from whether they had not experienced the symptom (coded as 0; e.g., "I do not feel sad") to whether they have severely experienced the symptom (coded as 3; e.g., "I am so sad or unhappy that I can't stand it"). An individual's total score, which ranges from 0-63, indicates

the severity of her/his depressive symptoms, and can be classified as either *minimal* (0-13), *mild* (14-19), *moderate* (20-28), or *severe* (29-63). This scale had good internal consistency at T1 (α = .81) and T2 (α = .88). Time 1 and Time 2 were positively correlated (r =.44, p < .01).

Results

Cross-sectional Regression Analyses

A series of four cross-sectional regression analyses were conducted to examine associations between the predictors (race, sense of belonging, and campus racial climate) and depressive symptoms at baseline. Results from the present study supported all hypotheses except for the second hypothesis. The first hypothesis was supported, indicating that race had a significant and positive association with student reports of depressive symptoms during the first semester of college. African American students reported higher levels of depression at baseline (see Table 1), which explains why race was positively associated with depression ($\beta = 2.82$, SE = .80, p < .001) and the overall model accounted for 13% of the variance in depression. The only control variable related to depression was maternal education, which showed a negative association ($\beta = -.66$, SE = .29, p < .05). This indicates that students with mothers who are less educated reported higher depressive symptoms, and those with mothers who are more educated reported less depressive symptoms and attitudes at baseline. The second hypothesis was not supported, indicating that race was not associated with student perceptions of sense of belonging (SB) at baseline ($\beta = -.25$, SE = .17, $R^2 = .02$, p = .143). Although White students reported slightly higher scores on SB than African American students (see Table 1), the bivariate correlations presented in Table 2 indicate that race and perceptions of SB at Time 1 were minimally correlated.

The third hypothesis was supported, indicating that race was also a significant predictor and positively associated with student perceptions of campus racial climate ($\beta = 1.14$, SE = .13,

$R^2 = .38$, p < .001). The control variables accounted for 5% of the variance in perceptions of campus racial climate (CRC), whereas race accounted for an additional 33% of the variance in perceptions of CRC. Moreover, African American students reported higher levels of "general" stress, race-related stress, and racial tension on campus at baseline (see Table 1).

The fourth hypothesis was supported. Unlike race, student perceptions of CRC significantly predicted student perceptions of SB ($\beta = -.27$, SE = .09, $R^2 = .062$, p <.01). CRC was negatively associated with SB, suggesting both African American and White students are less likely to report feeling comfortable or pleased with their university's social environment when they also perceive greater race-related stress and tension on campus. Conversely, students who report lower scores on CRC are likely to report feeling more comfortable and connected with the university, indicating they have greater SB.

Longitudinal Regression Analysis

Table 3 presents results from three longitudinal regression models. Model 1 represents Time 2 depressive symptoms (BDI T2) regressed onto race and Time 1 depressive symptoms (BDI T1); and CRC and SB are included in Model 2 and Model 3, respectively. Control variables (age, gender, mother education) were not statistically significant in either models. However, autoregressive effects were significant for all longitudinal analyses, indicating that BDI T1 significantly predicted BDI T2 for each predictor. Accordingly, Model 1 illustrates that race ($\beta = 2.96$, SE = 1.24, p < .05) and BDI T1 ($\beta_{T1} = .44$, $SE_{T1} = .13$, p < .001) were both statistically significant and positively associated with BDI T2 for first-year students. Model 1 accounted for 25% of the variance in T2 depressive scores ($R^2 = .25$). Both African American and White freshmen students who reported high depression scores at baseline also reported higher scores at

follow-up. Additionally, freshmen African American students report higher depression scores at T1 and T2, as well as experienced more depressive symptoms on average at T2 (see Table 1).

According to Model 2, student perceptions of campus racial climate at baseline (CRC T1; $\beta = 1.32$, SE = .59, p < .05) and BDI T1 ($\beta = .44$, SE = .10, p < .001) were statistically significant in predicting BDI T2. Model 2 accounted for an additional 2.5% of the variance in T2 depressive symptoms (total $R^2 = .275$). Both CRC T1 and BDI T1 were positively associated with BDI T2 as well, indicating that depressive symptoms persist and are increased over time as the student's perceptions of CRC increased. African American freshmen reports of CRC were two times more than that of White students at Time 2 (see Table 1). Notably, when CRC was added to the model, race was no longer a significant predictor.

Results in Model 3 indicate that perceptions of sense of belonging at Time 1 (SB T1) and BDI T1 were also statistically significant in predicting BDI T2 in first-year students. BDI T1 was positively associated with T2 depressive symptoms ($\beta = .37$, SE = .10, p < .001), and perceptions of SB T1 were negatively associated with BDI T2 ($\beta = -1.43$, SE = .49, p < .01). Perceptions of SB T1 accounted for an additional 4% of variance in T2 depressive symptoms in the model (total $R^2 = .32$). Additionally, this model shows that when SB was added, and the prior relations (models 2 and 3) between race or CRC and BDI T2 were no longer significant.

Discussion

The purpose of this study was to examine the associations between race, depressive symptoms, sense of belonging and campus racial climate among first-year college students attending a PWI. This study also sought to examine how students' race and baseline perceptions of campus racial climate and sense of belonging affects depressive symptoms over time. This study supported six out of the seven hypotheses. To contextualize the findings of this study, White institutional presence, *WIP* (Gusa, 2010), is used as an analytical framework to operationalize the culture and practices within a PWI setting.

The most noteworthy findings appeared from the longitudinal regression analysis. Student perceptions of sense of belonging are associated with depressive symptoms at follow-up and accounted for most of the variance in depressive symptoms 1.5 years later, even when race and perceptions of the campus racial climate are controlled. Although the longitudinal analysis shows that depressive scores at follow-up are significant with all predictors, the direct effects of race and campus racial climate disappeared when sense of belonging was included in the model. This suggests that race and campus racial climate potentially mediate sense of belonging. Another notable finding from the present study is that race is positively associated with depressive symptoms during the first semester of college. The present study provides evidence for racial differences in the depressive symptoms of students enrolled at PWIs, particularly those not physically located near urban or ethnically diverse communities were the diversity makes racial marginalization appear less salient. Consistent with previous research (Negga et al., 2007), African American students reported higher depressive symptoms at baseline. This could suggest

they start college with greater depressive attitudes, or that they become more depressed within the first semester than their White classmates.

Findings from the present study show that race is associated with student perceptions of the campus racial climate during the first semester of college. The present study's finding is consistent with previous studies indicating that African American students report more negative perceptions of campus racial climate (Hughes et al., 1998; Ancis et al., 2000; Reid & Radhakrishnan, 2003). African American students experience racial stress and are socialized to be cognizant of racial tension (Sellers & Shelton, 2003). In contrast, White students in this study reported more positive perceptions of campus racial climate. This finding is consistent with studies that demonstrate that White students consistently report less negative perceptions of campus racial climate than students from racially underrepresented populations (Ancis et al., 2000; Harper & Hurtado, 2007). These racial differences in perceptions can be understood through WIP's White blindness (the inability to recognize White racial identity, White ideology, and to deny race as a reason for why comments or behaviors are racially discriminatory), White estrangement (the physical and social distancing of Whites from people of color), and monoculturalism (conformity to one scholarly and cultural perspective, resulting in academic and social exclusivity) attributes.

Due to the ubiquity of White cultural norms within PWIs (i.e., monoculturalism), White students are less likely to perceive or experience racial stress, and can mentally, physically, and socially distance themselves from situations that may evoke racial stress. In contrast, Studies show that African American college students not only report the highest levels of differential treatment, but also report that differential treatment typically occurs by both white peers and professors in class settings (Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan, & Andrews-

Guillen, 2003). As a result, African American freshmen at PWIs are performing and socializing in universities where White blindness may maintain the lack of awareness and responsibility that white students and faculty have in creating racial tension and stress on campus (Gusa, 2010). White students' may also fail to recognize when they verbalize racial stereotypes and microaggressions around students of color (Worthington et al., 2008), and how that contributes to the campus climate. That could explain why student perceptions of the racial climate on campus were negatively associated with their perceptions of whether they feel connected to the university at baseline. Consistent with previous studies (Hausmann et al., 2007; Johnson et al., 2007), the present study found that campus racial climate is associated with sense of belonging. Since first-year African American students reported higher levels of racial tension and lower feelings of belongingness than White students, African American students' attitudes appear to drive this finding.

Additionally, White students are less likely to socialize with students from other racial backgrounds because at PWIs they are overwhelmingly exposed to peers of the same race. Since they are also less likely to perceive their tendency to engage in same-race interactions as a racial behavior, White students assume this behavior is "normal" and inconsequential (Bonilla-Silva & Embrick, 2007). First-year African American students that struggle to establish peer support may isolate themselves in response to White students' unconscious racial segregation (Utsey et al., 2000; Bonilla-Silva & Embrick, 2007). African American students' interpretation of this segregation may partially explain why they feel less connected to the university. They often question their sensitivity to the verbal and nonverbal cues they receive from White peers and faculty as they determine if the cues are racist (Harwood et al., 2012). Although the ambiguous nature of microaggressions makes them difficult to address with peers, the consequence is

African American first-years perceiving a hostile climate that makes them uncomfortable and less likely to be satisfied or comfortable at the university. African Americans will likely also perceive less social support, which is integral to developing a stronger connection with the university (Booker, 2007; Hausmann et al., 2007; Rayle & Chung, 2007). Despite African American students' perceptions, White students perceive the racial climate and their connection to the university differently.

The racial composition of their classmates and departmental faculty, as well as the perspectives included in course materials, convey what or who is accepted within the PWI academic milieu. For instance, the overrepresentation of White Western ideology in teaching and textbooks—coupled with the underrepresentation African American Western ideology—implies that students of color are expected to adopt the White epistemological worldview that determines "what knowledge is, how to assess it, what has greater values, and who possesses it" (Gusa, 2010, p. 475). Although it is not inherently problematic to be educated in one scholarly perspective, in practice this has almost exclusively meant framing and adopting a "deficit model" attitude towards other American scholarly worldviews and cultures (e.g., African American worldviews). Therefore, African American students can interpret the underrepresentation of their own worldviews to mean those views are less valid and less valued at PWIs. The pervasiveness of monoculturalism and the lack of multiculturalism at PWIs may create academic and social exclusion, which has psychological impact on African American students. Consequently, this exclusion also creates an environment where racial interactions or discourse surrounding race issues is difficult and uncomfortable to navigate.

White ascendancy is thoughts and behaviors that convey or promote White superiority, entitlement, dominance over racial discourse, and White victimization. This is represented in the

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way White students may consciously or unconsciously attempt to manage how culturally representative the university should be (e.g., through dominance over racial discourse) in response to students of color promoting multiculturalism. Moreover, the stress that White first-year students experience will likely not be ascribed to their racial identity, which can make them psychologically comfortable identifying White on campus even when they are not conscious of their racial identity. Therefore, if White students fail to recognize the campus as racially insensitive or solely promoting White cultural norms (e.g., White blindness and monoculturalism), and avoid or withdraw from students of color who express dissatisfaction with the climate (e.g., White estrangement), this will have little psychological impact on them during their first-year experience.

The only finding not supported was that race did not predict sense of belonging during the first semester of college. This finding may reflect the statistical methods used and racial composition of analytic sample. This cross-sectional analysis was tested using all participants, rather than analyzing each group separately. Nevertheless, White students reported greater sense of belonging, with African American students scoring only slightly lower. Additionally, race may not be associated with student perceptions of sense of belonging because the White students in this sample may be less likely to attribute their White racial identity as a factor for assessing their institutional fit. Therefore, their scores could be influencing potential direct effects that race may have had on sense of belonging.

Overall, this study provides evidence to support that improving sense of belonging during the first semester shows decreases in the depressive symptoms of first-year students later in college. In this study, students who report greater belongingness to the university during the first semester appear to experience less depressive symptoms at baseline and overtime. Conversely,

students who report lower sense of belonging when they start college appear to have higher depressive symptoms as well as be at risk of exacerbating their symptoms as they remain in college. Since attrition is higher among students with mental health issues and from racially underrepresented backgrounds (O'Keefe, 2013), improving students' social networks can reduce their likelihood of developing severe depressive symptoms and help them feel supported within university.

Limitations and Directions for Future Research

Some limitations for this study should be noted. First, the racial composition of the sample size posed limits on the interpretation of the findings. Future research should obtain a larger sample, with the intent of obtaining a larger African American sample. Second, *Cohen's d* was not tested to determine if there were statistically significant race differences in the outcome. Future research should test this to determine how significant are these differences.Third, gender differences and racial identity were not examined in the present study. Although gender was controlled and did not have any statistical significance in this study, there may be race-specific gender differences in freshmen perceptions of sense of belonging and campus racial climate that can illustrate varying experiences among students of color. Gender differences exist in how African American students experience college (e.g., Chavous et al., 2004), and this could be explored using longitudinal designs. Racial identity is also important to consider, as several studies have noted that African American student's racial identity can be associated with psychological and college adjustment, as well as perceiving more racial discrimination (Sellers & Shelton, 2003; Anglin & Wade, 2007). A racial identity that encourages cultural pride has been associated with positive adjustment (Bynum, Burton, & Best, 2007). However, an Afro-centric identity is associated with worse psychological adjustment because a PWI often does not

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support their Afro-centric worldview (Anglin & Wade, 2007). Alternatively, possessing a multicultural racial identity is associated with better psychological adjustment because students adjust easier to college when they feel connected with other cultural groups at a PWI (Anglin & Wade, 2007). Future research should also examine differences in perceptions of campus racial climate and sense of belonging between African American freshmen with various racial identities, as well as examine changes in depressive symptomology overtime.

The present study also did not explore whether race predicted sense of belonging at follow up. However, a significant correlation between these variables was found. Future research should explore if race predicts perceptions of sense of belonging over time. Although the race of first-year students appeared not to influence their perceptions of sense of belonging during the first semester, it is possible that over time African American students' racialized experiences will increase as they matriculate in an environment where they are underrepresented. Furthermore, African American student responses to White institutional presence was largely contextualized in comparison to White students' perspectives, but not White faculty perspectives. Since negative campus racial climate has been associated with the attrition of African American faculty and the retention of White faculty (Jayakumar, Howard, Allen, & Han, 2009), future research would benefit from exploring whether faculty perceptions of the campus racial climate are consistent with White students. Additionally, the elimination of direct effects from previous predictors suggests that further examination of the interrelations among the predictors (e.g., race, campus racial climate, sense of belonging) is needed to understand the difference between African American and White first-year students.

Finally, peer support is vital to African American having a better sense of belonging (Hausmann et al., 2007), and access to counseling is important to addressing student retention

and mental health needs (O'Keefe, 2013). Mental health professionals are encouraged to assist African American students with racial stress, as well as developing and identifying social support on and off campus. Studies show that more than 1 in 4 African American students enrolled in PWIs who were receiving counseling services report higher levels of perceived racial discrimination distress (Chao, Mallinckrodt, & Wei, 2012). Furthermore, negative perceptions of the campus racial climate among African American students may reflect that they have lower quality, or less supportive, social networks rather than that they simply do not possess social support. Therefore, future research should explore longitudinally whether student social support increases or declines over time, taking into account the quality and differences in the source (e.g., family, peer, and faculty) of support among first-year students.

Conclusion

The present study makes several contributions to the literature. First, it contributes to the limited body of literature examining the interrelations between race, campus racial climate, sense of belonging, and first-year African American college student depression. Second, it provides evidence suggesting more interventions should focus on improving sense of belonging during the first semester. To the researcher's knowledge, only one intervention appears successful in improving academic and health outcomes using methods to improve sense of belonging by framing student adversity a temporary part of college adjustment, rather than to the student's ethnic group or other deficits (Walton & Cohen, 2011). Third, the present study also provides evidence to support race differences in depressive symptom during the first semester of college and over time. Fourth, this study also contributes to the scarce body of longitudinal studies examining campus racial climate or sense of belonging. To date, this is the only study that longitudinally examines depressive symptoms as an outcome in relation to both these predictors. Finally, this study is also the only one to use White institutional presence (Gusa, 2010) as a framework to interpreting the university context to illustrate interracial interactions.

Furthermore, experiences of racial discrimination are either causing the development of or the exacerbation of depressive symptoms that will affect the academic performance of African American students. Although this study has emphasized the adverse mental health effects of cross-racial interactions on college campuses, evidence shows that interactions with diverse peers enhances social agency, academic self-confidence, collaborative learning, engagement in diversity-related activities, and understanding of people from diverse backgrounds (Laird, 2005;

Umbach & Kuh, 2006). African American student retention is important because they contribute and benefit from these diverse interactions. As Chavous and colleagues (2004) have claimed, further examination of the practices and messages that marginalize African American students at PWIs is needed.

Mental health professionals' knowledge and role in addressing depressive symptoms among African American freshmen involves understanding the larger racialized context that these students navigate. Education about White institutional presence provides clinicians perspective of not only the ubiquity of Whiteness on college campuses, but also how students from underrepresented racial groups may feel devalued within this racialized academic context. Mental health professionals, particularly those on college campuses, should receive training in how freshmen students of color can develop mental health problems or maladaptive copings skills in response to navigating a space that not only inevitably prompts student of color to meet new academic and social demands, but also is a racialized space. Mental health professionals who lack knowledge about White institutional presence will not know how to adequately address the race-related issues among students of color. The present study strengthens the empirical evidence for race, depression, and sense of belonging at PWI's so that therapeutic practices can improve coping strategies for African American students during the first-year college experience. Moreover, therapeutic practice should target the social and academic struggles of first-year students so that they improve their integration into the university and have a greater sense of belonging.

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APPENDIX A

Campus Racial Climate Scale

	Factor Loading	
Items	T1	T2
The university not having enough professors of my race	0.9	0.88
Having very few students of my race in my classes	0.9	0.88
The university lacking concern and support for the needs of students of my	0.9	0.88
Students and faculty expecting poor academic performance from students of my race	0.9	0.88
Tense relationships between Whites and minorities at the university	0.9	0.88
The university is an unfriendly place	0.9	0.88

Responses coded from 0 - 5: 0 = "does not apply," 5 = "extremely stressful"

Citations: Ancis, Sedlacek, & Mohr, 2000; Smedley, Myers, & Harrell, 1993

Table 1

Descriptive statistics for African American (N = 68) and White (N = 82) first-year
college students at Time 1 (T1) and Time 2 (T2; N = 133)

Variable	African American		White	
	M	*SD*	*M*	*SD*
Female (%, T1)	60%		55%	
Female (%, T2)	62%		55%	
Age (years; T1)	18.9	1.01	18.74	0.91
Mother's Education (T1)	4.91	1.32	4.87	1.38
Sense of belonging (T1)	5.12	0.94	5.43	1.00
Sense of belonging (T2)	4.77	1.00	5.62	0.86
Campus racial climate (T1)	2.55	1.05	1.36	0.45
Campus racial climate (T2)	3.19	1.28	1.34	0.42
Depressive symptoms (T1)	8.40	5.31	5.44	4.30
Depressive symptoms (T2)	10.52	6.74	6.43	5.45

Table 2   *Bivariate correlations among study variables*

	1	2	3	4	5	6	7	8	9
1. Race	–								
2. Age	.08	–							
3. Gender	.06	-.24**	–						
4. Mother Education	.02	-.12	.10	–					
5. SB (T1)	-.16	-.02	-.05	.04	–				
6. SB (T2)	-.42**	-.12	-.08	.08	.54**	–			
7. CRC (T1)	.61**	.15	.11	-.04	-.28**	-.41**	–		
8. CRC (T2)	.71**	.04	.20*	-.02	-.21**	-.49**	.75**	–	
9. BDI (T1)	.30**	.07	.12	-.16*	-.30**	-.31**	.25**	.27**	–
10. BDI (T2)	.32**	.13	.08	-0.14	-.37**	-.51**	.36**	.44**	.44**

Race is coded as White = 0, African American = 1. Gender is coded as Male = 0, Female =1.

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

Table 3

Hierarchical Regression Model of Time 2 Depressive symptoms predicted by
Race, sense of belonging and campus racial climate with control variables

	B (SE)		
Variable	Model 1	Model 2	Model 3
Age	-.64 (.50)	.48 (.50)	.53 (.49)
Gender	.75 (.97)	.48 (.96)	.54 (.94)
Mother's Education	-.38 (.35)	-.35 (.35)	-.36 (.34)
BDI (T1)	.45 (.10)***	.44 (.10)***	.37 (.10)***
Race	2.34 (.97)**	1.14 (1.17)	1.37 (1.14)
Campus racial climate (T1)		1.32 (.59)*	.92 (.59)
Sense of belonging (T1)			-1.43 (.49)**

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