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I, Quiera M Lige, hereby submit this original work as part of the requirements for the degree of Master of Arts in Psychology.

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Racial Identity, Self-Esteem, and the Impostor Phenomenon Among Black College Students

Student's name: Quiera M Lige

This work and its defense approved by:

Committee chair: Bridgette Peteet, Ph.D.

Committee member: Ann Kathleen Hoard Burlow, Ph.D.

Committee member: Alison Mcleish, Ph.D.
Racial Identity, Self-esteem, and the Impostor Phenomenon Among Black College Students

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Quiera M Lige
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Committee Chair: Bridgette Peteet, Ph.D.
Abstract

For Blacks, a positive racial identity has been shown to protect against poor psychological outcomes and also foster healthy self-esteem; conversely, a negative racial identity has been associated with diminished self-acceptance marked by feelings of inferiority. These negative attributes are two major facets of the impostor phenomenon (IP). IP is marked by an individual’s persistent perception of incompetency despite contrary evidence. IP has been found to negatively impact many high achieving students but literature on IP among Blacks is limited. The current study addresses this gap by examining the relationships between racial identity, self-esteem, and IP among 112 Black undergraduate students. Previous literature has emphasized a positive relationship between racial identity and self-esteem and an inverse association between self-esteem and IP; thus, it was hypothesized that self-esteem would mediate the relationship between racial identity and IP. Mediation testing via bootstrapping with 5000 re-samples (Preacher & Hayes, 2008) revealed support for the hypothesis ($B = -3.25$, $r^2 = .44$, $p < .05$; Bias Corrected Confidence Intervals, lower CI = -6.32, upper CI=-2.34). The current study revealed that self-esteem mediates the relationship between racial identity and IP. University initiatives should focus on creating inclusive environments that foster positive racial identity development and self-esteem for Blacks in an effort to reduce experiences of IP.
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Education is the most powerful weapon with which you can use to change the world

~ Nelson Mandela
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In 2009, Blacks earned only 10% of all bachelor’s degrees, 12% of all master’s degrees, and 7% of all doctorates (National Center for Education Statistics, 2012). Despite degree attainment for Blacks nearly doubling over the past decade, they are still lagging behind their White peers substantially in undergraduate, graduate, and professional degrees (Thompson, Gorin, Obeidat, & Chen, 2006). Expansive literature over the past 30 years has focused on identifying barriers to degree attainment for Blacks and proposing intervention strategies to unclog the educational pipeline for this population of students (Rodgers & Summers, 2008). Both social (e.g. racial climate of universities, discrimination) and academic (e.g. retention strategies, persistence, diverse faculty) constructs have been elucidated in understanding the collegiate experience for Blacks (Caldwell & Obasi, 2010; Rodgers & Summers, 2008); however, studies examining the psychological well-being of Blacks in higher education are lacking. The internal experiences (e.g., cognitions and emotions) of Black students arguably have a direct impact on degree attainment. One construct that has been widely studied among high achieving students due to its association with poor psychological well-being is the impostor phenomenon (IP).

IP is marked by an individual’s persistent internal experience that they are incapable or incompetent, despite contrary evidence (Clance & Imes, 1978). High IP individuals feel fraudulent in their environment and are concerned about being “found out” by others. IP has been associated with a decreased likelihood to pursue higher goals, diminished self-esteem, perfectionism, anxiety, and an overwhelming fear of negative evaluation (Cozzarelli & Major, 1990; Ross & Krukowski, 2003; Sonnack & Towell, 2001; Thompson, David, & Davidson, 1998; Thompson, Foreman, & Martin, 2000). Furthermore, IP may also limit the potential for
educational and occupational advancement (Ross & Krukowski, 2003). Due to its implications, IP has been widely studied and observed in many student and professional samples including business majors, medical students, and medical professionals (Gibson-Beverly & Schwartz, 2008; Henning, Ey, & Shaw, 1998; Sightler & Wilson, 2001) as well as in many diverse populations including Canadians, Koreans, Australians, and British student samples (Gibson-Beverly & Schwartz, 2008; Henning, Ey, & Shaw, 1998; Sightler & Wilson, 2001). Limited research has shown that high-achieving Black students experience IP but the correlates of IP that persist in majority White samples have not been studied extensively in Black samples (Austin, Clark, Ross, & Taylor, 2009; Ewing, Richardson, James-Myers, & Russell, 1996).

Two constructs emerge as potential buffers against the negative attributes of IP. Having a positive racial identity has been linked to lower levels of stress, depressive symptoms, and increased psychological well-being (Sellers, Copeland-Linder, Martin, & Lewis, 2006). Conversely, anxiety, poor college adjustment, and feelings of inferiority have been associated with a negative racial identity (Anglin, & Wade, 2007; Munford, 1994; Parham & Helms, 1985). Notably these negative attributes have also been found to be correlates of IP. Perhaps the most impactful correlate of positive racial identity is high self-esteem. Individuals with high self-esteem tend to experience lower levels of IP (Sonnack & Towell, 2001). Yet this well-established inverse relationship has not been examined heavily among Black samples.

The current study proposed to examine an exploratory model of racial identity, self-esteem, and IP among Black college students in an effort to address the limited literature on IP among Blacks. It is hypothesized that Blacks with a positive racial identity will experience higher self-esteem, which will subsequently be associated with decreased IP feelings. IP and the negative attributes associated with the construct will be described first. Next, a theoretical
foundation for the experience of IP among Black college students will be proposed as well as findings from the two studies that examined IP among solely Black samples. Literature on the relationship between the constructs (i.e., racial identity and IP, racial identity and self-esteem, self-esteem and IP) will follow and conclude with a model of the proposed relationships in the current study.

**Literature Review**

**The Impostor Phenomenon**

IP is characterized by a persistent perception of incompetency despite contrary evidence (Clance & Imes, 1978). IP has been found to permeate most areas of an individual’s functioning including social, cognitive, interpersonal, and academic (Cozzarella & Major, 1990; Ross & Krukowski, 2003); thus, considerable research has been dedicated to identifying the facets of IP. September and colleagues (2001) found that students high in IP were more self-critical, had decreased confidence in their abilities despite high grade point averages, and had lower self-acceptance than students lower in IP. Individuals high in IP have been described as deeply insecure with a damaged self-perception, fearful of others perceptions of them, avoidant, and fearful of both failure and success (Ross & Krukowski, 2003). Unsurprisingly, IP has been associated with anxiety, depression, excessive worry, an overwhelming fear of negative evaluation, a decreased likelihood to pursue higher goals due to a fear of failure, and diminished self-esteem (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995; Clance & O’Toole, 1987; Cozzarella & Major, 1990; Imes & Clance, 1984; Kumar & Jagacinski, 2006; Oriel, Plane, & Mundt, 2004; Thompson, David, & Davidson, 1998; Thompson et al., 2000). Despite the overwhelming consequences, breaking the cycle of IP is difficult.
In the cycle of IP, accomplishments are perceived as resulting from anything other than innate ability or intelligence, whereas failures are attributed to a lack of inherent intelligence or ability; thus, successes are discounted, and failures are internalized and magnified (Clance & Imes, 1978). This cycle is perpetuated by high IP individual’s approaches to new tasks. In facing a new challenge or deadline, high IP individuals either exhibit perfectionist tendencies by over-preparing for the task, or they procrastinate, putting off the anxiety provoking task until limited time remains to complete the task successfully (Clance & Imes, 1978; Cozzarelli & Major, 1990). Over-preparation reinforces the idea that the individual does not possess innate ability and must work much harder to achieve similar success. The individual who procrastinates is convinced that success came by luck. Regardless of the coping strategy, the motivating factor is a looming sense of failure that must be avoided.

For the high IP individual failure represents a direct attack to their self-worth and the opportunity to be discovered as a “fraud” (Kumar & Jagacinski, 2006; Thompson et al., 1998). To avoid failure and negative evaluation, these individuals refrain from tasks and goals that pose a high risk for failure (Cozzarelli & Major, 1990; Thompson et al., 2000; Thompson et al., 1998). Kumar and Jagacinski (2006) found that individuals high in IP were more likely to choose goals that provided little opportunity for failure or demonstrations of incompetence. In a sample of 181 family medicine residents, Oriel, Plane, and Mundt (2004) found that approximately forty-one percent of women and twenty four percent of men scored high in levels of IP ($p = .02$). Approximately seventy-five percent of those individuals high in IP felt they would be unable to practice medicine after graduation compared to forty-one percent of individuals low in IP ($p < .0001$). Further, Pearson correlations showed that IP was correlated with depression ($r = .45, p < .0001$), state and trait anxiety ($r = .39, p < .0001$ and $r = .65, p < .0001$, respectively), and low self-
esteem \( (r = -0.63, p < 0.0001) \). Despite approximately 90% of the sample of residents reporting adequate training and supportive training staff, high IP individuals’ fears of incompetency persisted. Despite the magnitude of empirical evidence on the presence of IP and the associated negative attributes, limited research is available on IP among Black college students. Utilizing a culturally relevant framework, the theoretical foundation of the implications of IP among Black college students is discussed next.

**IP among Black Students: The Theory of Othering**

In their seminal paper on IP Clance and Imes (1978) posited that high achieving women experiences of IP were associated with familial messages about their intelligence and ability, and their historically disadvantaged position in society. Other studies examining IP among women have also emphasized the relevance of societal gender inequality on the development and maintenance of IP, particularly in contexts where traditional gender roles are made salient (Jostl, Bergsmann, Luftenegger, Schober, & Spiel, 2012). Perhaps a similar explanation may be applicable for Black college students. For Black students the presence of IP and the attributes of IP including inadequacy, high anxiety, deep insecurity, diminished self-esteem, and overall fraudulent experience may be associated with their historically disadvantaged minority status in higher education.

Prior to the historic *Brown v. Board of Education Topeka Kansas, 1954* landmark case which granted Blacks the opportunity to pursue higher education alongside their White peers in the same institutions, Blacks were primarily attending and graduating from historically Black colleges and universities (HBCU). The integrative transition that followed meant that most Blacks, for the sake of equal education, were often entering into predominantly White institutions (PWI; Saddlemire, 1996). Nearly 60 years later, Blacks have made increased
advancements in educational domains; yet, discrimination and racism, feelings of isolation, and diminished self-efficacy regarding academic performance are still common obstacles for Black students (Levin et al., 2003). Obstacles such as these can create an ostracizing environment where the Black student is perceived as an “other” or an anomaly in higher education.

The theory of othering posits that societal norms and expectations predicate who is made to feel and be powerful versus who is made to assume a place of inferiority (Spivak, 1985). Situating the theory of othering within the context of higher education history has shown that Black students as a group are seen as the “identifiable other” who operate within a different set of customs and beliefs compared to their “ingroup” White peers (Rawls & David, 2005). Due to societal norms, some high achieving Black students are socialized to believe that success means doing as well as or better than their White peers (Baber, 2012). Thus, despite various academic achievements some Black students are burdened by the need to prove their intellectual ability to their White peers and instructors (Baber, 2012). The need for approval from others can lead to some Black students constantly evaluating their academic ability and achievement based on the real or perceived opinions of others.

Navigating through an educational infrastructure as a perceived “other” can have negative implications for the psychological well-being of Black college students. Comparative studies on Black students’ experiences at PWI and historically Black colleges and universities (HBCU), which notably differ by student body racial composition, help elucidate the effects of race in the college environment. Attendance at HBCU has been linked to higher academic efficacy, increased intrinsic motivation, and greater degree obtainment (Cockley, 2003; Gasman et al., 2010); while students at PWI have been found to face psychosocial obstacles and barriers to degree obtainment such as increased minority status stress and isolation from their peers.
Minority status stress is particularly daunting as it is the result of compounded experiences of racism, discrimination, and feelings of inadequacy due to academic qualifications being questioned (Smedley, Myers, & Harrell, 1993). These stressors may leave some students with a lack of confidence in their academic ability and themselves, as well as feelings of isolation and not belonging to the collegiate community (Fries-Britt & Griffin, 2007). Overall, Black students at PWI have to invest more time, energy, and resources during the course of their collegiate career to achieve the same academic outcomes as their Black peers at HBCUs (Reeder & Schmitt, 2013). Due to the implications of race in higher education, a culturally relevant framework has been continuously utilized when examining the effects of IP among Black college students. These studies are discussed next.

**Studies on IP among Black College Students**

Two studies to date have examined the attributes of IP among Black student samples. Ewing and colleagues (1996) investigated the relationship between racial identity attitudes, worldview, academic self-concept and IP among 103 Black graduate students. Approximately 70% of the participants identified as female and the mean age of the sample was 30.89. The objective of the study was to identify the presence of IP among Black high achieving students and professionals, and to understand what culturally relevant factors may buffer against the negative effects of IP. The authors posited that worldview and racial identity attitudes would be stronger predictors of IP than academic self-concept among Black graduate students. The authors theorized that Black graduate students at PWI would be inundated with racial and ethnic specific experiences that would negatively impact their psychological well-being (e.g. discrimination, racism, etc.) and be associated with increased levels of IP; thus having a strong racial identity and optimistic world-view would buffer against feelings of IP. Results of the study revealed that
worldview, and not racial identity, was a significant predictor of IP ($\beta=-0.36, p<0.01$). However, when academic concept was added to the model with racial identity attitudes ($R^2 = .43; p < .0001$), the effect of racial identity attitudes on IP was significantly stronger ($\beta=-0.33, p<0.01$). The authors noted that these findings may be a product of the majority of graduate students in their sample having the same level of racial identity. Although racial identity alone was not found to be a significant predictor of IP among Black graduate students and professionals, these findings cannot be extrapolated for undergraduate students who may have varying levels of racial identity due to their limited racial and ethnic experiences in a higher educational setting. Regardless, more research is warranted to understand the relationship between IP and racial identity among Black undergraduate students.

Austin and colleagues (2009) examined attributes of IP among Black undergraduate students. The authors examined the relationship between survivor guilt, IP, and depression. Survivor guilt was conceptualized as the psychological experience of Black students who have achieved access to educational opportunities unavailable to other Blacks. They posited that feelings of survivor guilt would lead to increased feelings of academic fraudulence subsequently increasing depressive symptoms. Results revealed significant positive correlations between IP and survival guilt ($r =0.43, p<0.01$) and depressive symptoms ($r =0.29, p<0.01$) and IP mediated the relationship between survivor guilt and depression ($\beta = .23, p <.05$). The authors theorized that some Black students are aware of the systemic and institutionalized discrimination that has made it difficult for Blacks to pursue postsecondary education. The low enrollment of Blacks in higher education compared to their White counterparts may have profound implications for Black college students. Harper and colleagues (2011) described the isolated experience for the Black student as *onlyness*. *Onlyness* is the continual psychological and emotional burden of
having to interact with a racially homogenous environment of which there are few others present from one’s racial or ethnic group. Not seeing or interacting with other students on campus who have shared ancestry and culture can leave some Black students feeling out of place (Austin, 2009). This is directly in line with the theory of othering. The message of Black students as the “identifiable other” is reinforced through environmental cues such as the diminished presence of Blacks on college campuses. It is evident through research such as Austin’s and colleagues (2009) and Ewing and colleagues (1996) that the knowledge and implications of being a student of color within the educational system may be associated with feelings of IP. Thus, it is necessary to understand further the relationship between racial identity and IP.

**Racial Identity and IP**

Racial identity is the importance and impact of an individual’s heritage, customs, and traditions on their beliefs and behaviors (Helms, 1990; Sellers, Rowley, Chavous, Shelton, Smith, 1997). Racial identity theories descend from the identity theory which posits that individuals have access to numerous identities which are hierarchically organized in relevance to any specific domain (Stryker & Serpe, 1994). According to identity theory, an individual may or may not ascribe to their racial group and the significance of racial identity can vary by domain. Compared to other ethnic and racial groups, Blacks have been found to place high importance on racial and ethnic identity (Tatum, 1997). Jaret and Reitzes (1999) studied racial and ethnic identity importance among 471 self-reported Blacks, Whites, and multiracial/ethnic participants. They found significant group mean differences, with Blacks (67.4%) placing greater importance on racial identity than Whites (40.4%) and multiracial/ethnic participants (36.9%). They also examined the perceived importance of racial/ethnic identity across various domains, and found that Blacks, compared to Whites and multiracial/ethnic individuals, perceived their racial/ethnic
identity to be more salient in public, work, and neighborhood settings. Due to the empirical evidence of the importance of racial identity among Blacks, multiple theories of racial identity exist. One of the most commonly utilized models is the Multidimensional Model of Racial Identity (MMRI).

The MMRI includes numerous dimensions of racial identity including the salience and centrality of an individual’s identity, the individual’s ideology associated with their identity, and the individual’s feelings towards their membership in the racial group (Sellers et al., 1997). The MMRI allows for variance across dimensions in any given domain. Private regard, a subscale of the MMRI, is defined as ones global feelings towards Blacks and personal feelings about being Black (Sellers et al., 1997). While many studies have utilized centrality (defining oneself using racial constructs) and public regard (the degree to which an individual feels others’ positively or negatively perceive Blacks) as indicators of racial identity, private regard is an indicator of racial identity that has been found to specifically foster healthy self-esteem (Rowley, Sellers, Chavous, & Smith, 1998). High scores on the private regard subscale indicating that an individual feels positively towards Blacks and their membership in that group will be utilized as the indicator of positive racial identity in the current study.

Due to the dearth of research on IP among Blacks it is difficult to draw conclusions about the impact of racial identity on IP. However, research has shown that a positive racial identity is associated with positive benefits, some of which are in direct contrast to the negative attributes of IP. Perhaps some high achieving Black college students are experiencing decreased anxiety, depression, and feelings of academic fraudulence, all of which are attributes of IP, due to the protective benefits of having a positive racial identity. For example, the internalization stage of Cross’s (1991) Nigresence Model has been associated with increased self-esteem and positive
self-regard (Phelps, Taylor, & Gerard, 2001). Elion and colleagues (2012) found that Black students who had reached the internalization stage reported high academic standards and high self-esteem without self-criticism, depression, and anxiety. Sellers, Copeland-Linder, Martin, and Lewis (2006) found that private regard of the MMRI was associated with lower levels of perceived stress, depressive symptoms, and increased psychological well-being in a sample of 314 Black adolescents. Conversely, a negative, anti-Black and/or pro-White racial identity has been associated with depressive symptoms, anxiety, poor college adjustment, and feelings of inferiority, all of which have been associated with IP (Anglin & Wade, 2007; Munford, 1994; Parham & Helms, 1985).

Certain activities which tend to promote psychological well-being are also associated with traditional Black group membership including the importance of and reliance on family and extended family, religious affiliation, resiliency in the face of challenges, and social interactions with other Blacks especially in a White majority environment (e.g. PWIs; Marsh, Chaney, & Jones, 2012). Rawls and David (2005) posit that when groups become systematically excluded they tend to create protective groups of their own based on their exclusion; this has been observed in Black student samples (Chiang, Hunter, & Yeh, 2004; Constantine, Wilton, & Caldwell, 2003; Pike & Kuh, 2006). Research has shown that Black students who engage in same-race groups, activities, and friendships gain positive benefits (Hagedorn & Terezini, 1996; Kimbrough, 1995). In order for a Black student to seek out these same-race experiences it is likely that they feel positively toward Blacks and their membership in the group (Mitchell & Dell, 1992). One of the strongest correlates and benefits associated with racial identity is high self-esteem. The relationships between racial identity and self-esteem and IP and self-esteem are discussed next.
Racial Identity and Self-Esteem

Self-esteem, or how we think and feel about ourselves, is critical in building self-worth and psychological well-being (Crocker, Luhtanen, Blaine, & Broadnax, 1994). Self-esteem impacts the daily life of the individual and greatly shapes their self-perception, subsequently affecting their behavior and emotions (Kernis, 2003). High self-esteem can be characterized as a favorable self-image that is secure and maintained across contexts (Deci & Ryan, 1995). In Black college student samples high self-esteem has been associated with better academic performance and psychological well-being (Hope, Chavous, Jagers, & Sellers, 2013). Conversely, college students with low self-esteem tend to procrastinate more, have lower attrition rates, and poorer psychological well-being (e.g. anxiety, depression; Peterson-Graziose, Bryer, & Nikolaidou, 2013; Saleem & Rafique, 2012; Sonnak & Towel, 2000). The benefits of high self-esteem among college students are consistent throughout the literature; thus, development and promotion of high self-esteem within this population is essential. Despite the idea that due to a historically disadvantaged position in society, Blacks would exhibit lower self-esteem in comparison to Whites (Cross, 1991), research has consistently shown that Blacks have higher self-esteem than other racial groups and that self-esteem serves as a protective factor against negative cognitions (Rowley et al., 1998; Tweng & Crocker, 2002).

Rowley and colleagues (1998) examined racial identity subscales of the MMRI as predictors of self-esteem among 173 Black undergraduates and found that private regard was the only significant predictor of self-esteem ($\beta = .25$, $p < .05$). In a meta-analyses study of racial differences in self-esteem (included in the study were Hispanic, White, Black, and Asian Americans), Tweng and Crocker (2002) found that Blacks reported the highest self-esteem. Further, a positive racial identity provided a buffer against low self-esteem. Lastly, self-esteem
was highest for Blacks in the college age-range. Hope and colleagues (2013) found that Black students who felt positively towards Blacks and their membership in that group reported higher self-esteem and higher grades than their Black peers who held pessimistic views towards Black and had less racial pride. Although some researchers reasoned that racial identity and societal stigma would threaten self-esteem, it has been shown that racial identity promotes positive self-esteem for Blacks. One explanation for the protective factor of racial identity is the insulation theory.

The insulation theory posits that Blacks compare themselves to members of their racial group as opposed to members of other racial groups (Rowley et al., 1998). Racial identity literature appears to support the insulation theory. Blacks have been found to derive their personal self-esteem from their evaluations of other Blacks rather than their perceptions of how others view Blacks, which has been found to produce positive psychological effects (Crocker et al., 1994; Tweng & Crocker, 2002). By avoiding comparisons with other groups, primarily the dominant culture, self-esteem is protected from feelings elicited by cultural discrimination and racism.

**Self-Esteem and IP**

While racial identity is associated with high self-esteem, low self-esteem is associated with higher levels of IP (Sonnack and Towell, 2000). Low self-esteem is characterized as fragile, context dependent, and reliant on external validation. The correlation between self-esteem and IP is understandable considering that individuals with low self-esteem are deeply concerned about how their performance compares to those around them and have a tendency to set very high standards and expectations for themselves (Deci & Ryan, 1995). Their self-worth is thus derived from meeting their own self-imposed high standards and the expectations of others. This, in
essence, is very similar to high IP individuals. Conversely, individuals high in self-esteem are less likely to generalize negative evaluations or outcomes to their overall self-worth. The necessity for external validation is reduced with high self-esteem (Kernis, 2003); thus, high self-esteem offers a protective buffer against the impact of negative experiences such as failure (Brown, 2010). Differences in levels of self-esteem have been a defining characteristic of IP.

Cozzarelli and Major (1990) identified conceptual differences between low IP and high IP individuals among 137 undergraduate students. The study examined state and trait self-esteem (changes in self-esteem across contexts and overall general self-esteem, respectively), IP, mood, and lowered performance expectancies. Results of the study revealed that students high in IP had lower trait self-esteem, increased anxiety, and lower performance expectations before an exam than non-IP sufferers. Following a perceived failure, IP sufferers were more anxious, had lower satisfaction, and lower state self-esteem than non-IP sufferers. The inverse relationship between trait self-esteem and IP accounted for the effects of state self-esteem, defensive pessimism, satisfaction, and mood. That is, when trait self-esteem was held constant, the effects of these variables were no longer significant. The inverse relationship between global self-esteem and IP has come to be a defining characteristic of the conceptualization of IP. Sonnack and Towell (2000) found that for British college students, out of seven predictor variables including demographic and psychological factors, low self-esteem was the strongest predictor of IP scores ($r = -0.671, p < .0001$). One explanation for this relationship is that students with a healthy positive self-image are able to internalize their success as well as not experience diminished self-worth following a failure.

**The Current Study**
Research has shown that a portion of college students perceive themselves as academic frauds, or impostors, and are susceptible to negative effects including an overwhelming fear of negative evaluation, decreased likelihood to pursue higher goals, academic-related anxiety, perfectionism, poor mental health outcomes, low self-esteem and self-efficacy, diminished interpersonal relations, and the inability to enjoy success (Cozzarelli & Major, 1990; Ewing et al., 1996; Thompson et al., 2000;). Despite the expansive literature on IP among diverse samples, only two studies to date examine IP among Black college students. Utilizing the theory of othering as a way to understand Blacks experiences of IP, Black students may be more susceptible to feelings of IP due to their minority status and the environmental cues as the “other” in higher education. These obstacles may lead to feelings of IP for some Black college students. Building off of the limited research on IP among Black college students, two constructs emerge as potential buffers limiting the effects of IP.

The literature supports that a positive racial identity is linked to feelings of academic competence, overall college adjustment, increased well-being, and high self-esteem for Black students (Adan & Felner, 1995; Oney, Cole, & Sellers, 2011). One gap in the literature that the current study is addressing is the limited exploration of the association between racial identity and IP. Racial identity has been found to buffer against negative cognitions, such as those associated with IP, yet only one study to date has examined the direct relationship between racial identity and IP among Blacks. More surprisingly, no study has examined racial identity and IP among Black undergraduate students. Further, IP and self-esteem have a well-established relationship in non-Black samples; with high self-esteem individuals rarely experiencing IP to the extent of their low self-esteem counterparts regardless of the type of self-esteem measure utilized (Cozzarelli & Major, 1990). Based on the literature, Black students with a positive racial
identity should have higher self-esteem and in turn experience lower levels of IP. The current study examines the direct and indirect effects of an exploratory model of these three constructs. It is hypothesized in the proposed study that: 1) there will be a direct effect of racial identity on self-esteem, such that individuals with positive racial identity will report higher levels of self-esteem; 2) there will be a direct effect of self-esteem on IP such that individuals with high levels of self-esteem will report lower levels of IP; and 3) there will be a significant indirect effect of self-esteem on the relationship between racial identity and IP.

CHAPTER II

Method

Participants

The participants were 112 (74% female) self-identified Black undergraduate students. Participants were enrolled in both public and private predominantly white institutions (PWI). Participants were from various class standings and majors. The participants’ demographics are presented in Table 1.

Measures

Clance Impostor Scale. The CIPS is a 20-item measure that assesses the degree to which an individual feels like an impostor, or academic fraud. The participants responded with their perceived degree of truth to each item on a 5-point Likert scale (ranging from not at all true to very true). Example items include “I often worry about not succeeding with a project or on an examination, even though others around me have considerable confidence that I will do well” and “At times, I feel my success has been due to some kind of luck.” A higher cumulative score reflects greater feelings of impostorism. The CIPS has been found to have good reliability; however, there is debate over the validity of the measure (French, Ullrich-French, & Follman,
French and colleagues (2008) advise using a participants total score instead of subscale scores, which was done in the current study. In this study, the Cronbach’s alpha for the CIPS was .91.

**Rosenberg Self-Esteem Scale.** To assess feelings of self-esteem participants completed the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965). On a 4-point Likert scale (ranging from strongly disagree to strongly agree) participants responded with their level of agreement to each item. Example items include “On the whole, I am satisfied with myself” and “I am able to do things as well as most other people.” Higher self-esteem was demonstrated by higher cumulative scores. A study by Sinclair, Blais, Gansler, Sandberg, Bistis, and LoCicero (2010) found that the Rosenberg self-esteem scale had good convergent and discriminant validity and good reliability. In this study, the Cronbach’s alpha for the Rosenberg Self-Esteem Scale was .90.

**Multidimensional Inventory of Black Identity.** The participants completed the 6-item Private Regard Subscale of the Multidimensional Inventory of Black Identity (Sellers et al., 1997; MIBI) to assess feelings towards Black and their membership in the group. The participants responded with their perceived level of agreement to each item on a 7-point Likert scale (ranging from strongly disagree to strongly agree). Example items include “I am proud to be Black” and “I feel that the Black community has made valuable contributions to this society.” A higher cumulative score reflects participants increased positive feelings towards Blacks and their involvement in the group. The MIBI has been found to have moderate internal consistency (Simmons, Worrell, & Berry, 2008); yet, the validity of the model has been debated with studies suggesting a two to four factor model instead of the original seven factor model. However, the
private regard subscale has been reported as viable factor in the five factor model (Helms, 1990). In this study, the Cronbach’s alpha for the Private Regard Subscale was .85.

**Demographics.** The participants completed a series of demographic questions including gender, ethnicity, school racial composition, class standing, and GPA.

**Procedure**

After receiving the appropriate Institutional Review Board approval, participants were recruited in three ways: 1) Recruitment statements were posted on Facebook (www.facebook.com) groups specifically targeting clubs and organizations that included Black students in higher education; 2) announcements were made in an introduction to psychology course at the author’s institution; 3) recruitment statements were emailed through several university psychology listservs around the country. To be included in the study participants had to (1) self-identify as Black; (2) be currently enrolled in an associate or baccalaureate degree program; and (3) be a consenting adult (age 18+). All participants were provided with a web-secured survey link through the Survey Monkey website to an anonymous questionnaire. The current study was part of a larger study on parental racial socialization and IP, thus participants completed several measures not included in the present analysis. The questionnaire took approximately 15 minutes to complete, and the respondents were aware that their participation was voluntary and could be stopped at any time. Students in the introduction to psychology course received a research credit for their participation. There were no other incentives provided for participating.

**Data Analysis**

Preliminary analysis included capturing Pearson’s correlations for study variables (racial identity, self-esteem, and IP) and demographic characteristics. Correlation analyses revealed no
significant correlations between IP and demographic variables including gender, socioeconomic status (SES), and class standing. However, SES was positively correlated with private regard ($r = .23, p < .05$) and self-esteem ($r = .25, p < .01$); thus, SES was added as a covariate, and controlled for in the primary analysis. The primary analysis utilized a mediation approach as described by Preacher and Hayes (2008) where the direct and indirect effects of the relationships between the variables are captured. One primary advantage of the Preacher and Hayes (2008) approach is that it actually tests, rather than infers, the indirect effect of the mediation model unlike the traditional Baron and Kenny (1986) approach.

While other statistical approaches exist to measure mediation, bootstrapping methods are becoming more prominent. Bootstrapping methods are advantageous for small samples because they do not make assumptions that the sample is normally distributed, unlike the Sobel test (Hayes, 2009). Further, they do not compromise statistical power by running several separate linear regressions such as the Baron and Kenny causal steps approach (Hayes, 2009; Baron & Kenny, 1986). Figure 1 illustrates the three key parts of the mediation model including the direct, indirect, and total effects (Hayes, 2009). For each relationship between the variables a path coefficient is calculated. Path $c'$ is the direct effect of X on Y. The direct effect is the predictive effect of X on Y without any influence from the intervening or mediating variable or model covariates. Path $a$ is the direct effect of X on M. Path $b$ is the direct effect of M on Y controlling for the influence of X. The product of the $ab$ pathway is the indirect effect. The indirect effect ($ab$ pathway) is the effect of X on Y through the intervening variable M. The total effect of the model is the sum of the direct and indirect effects ($c$ pathway). Mediation is said to be present when the indirect effect is significantly different from zero such that zero is not found in the confidence intervals. Mediation is statistically assessed in a variety of ways. The present study
conducted mediation analysis according to the bootstrapping statistical approach outlined by Preacher and Hayes (2008).

As recommended for small samples, non-parametric bootstrapping with 5000 replacement analysis was used (Preacher & Hayes, 2004) to test self-esteem as a mediator of the relationship between racial identity and IP. Due to the correlation between SES and racial identity and self-esteem, SES was added as a covariate. The SPSS PROCESS macro was utilized for this analysis (Hayes, 2013). In this analysis, racial identity was the independent variable, IP was the dependent variable, and self-esteem was the mediator. Under the bootstrapping with replacement approach cases are randomly pulled from the data set and resampled 5000 times to create an approximation of the sampling distribution of the indirect effect. Through the distribution, confidence intervals are created. In this study 95% bias corrected confidence intervals are used. Mediation is said to occur when the confidence intervals for the indirect effect do not contain 0 (Preacher & Hayes, 2008).

CHAPTER III

Results

The mediation model was guided by theory and previous literature, but Pearson’s correlation analysis was run prior to mediation testing of the proposed model to confirm the predicted path directions. Analysis revealed support for the predicted path directions. Racial identity was positively and significantly associated with self-esteem and inversely associated with IP. Self-esteem was negatively and significantly associated with IP. Table 2 provides the correlations, means, and standard deviations for racial identity, self-esteem, and impostorism.

Bootstrapping with replacement revealed support for the mediation model. For the "a path", or the direct effect of racial identity on self-esteem, $B = .23, p < .001$. This path is
significant in the predicted direction. For the "b path", or the direct effect of self-esteem on IP, \( B = -18.42, p < .001 \). This path is also significant in the predicted direction. The significance of the \( a \) and \( b \) pathways indicate support for the mediation model. The “c path” is the total effect of the model not controlling for the mediator, \( B = -3.25, r^2 = .44, p < .05 \). The "c' path" is the direct effect of racial identity on IP controlling for self-esteem, \( B = 1.04, p > .05 \). This path shows no significant relationship between racial identity and IP without the inclusion of the mediating variable self-esteem. Results showed an indirect effect of self-esteem on the relationship between racial identity and IP (lower CI = -6.32, upper CI=-2.34), such that participants who indicated high levels of racial identity reported higher self-esteem, and through higher self-esteem, reported lower levels of IP. Because zero is not in the 95% confidence interval, the indirect effect is significantly different from zero at \( p < .05 \) (two tailed). Racial identity and self-esteem accounted for 44% of the variance of the dependent variable, IP.

CHAPTER IV
Discussion

Literature on Blacks in higher education suggests that discrimination, racism, and isolation are common experiences for some Black students. The theory of othering posits that society predicates who is made to feel superior versus who is made to assume a place of inferiority. Compounded experiences of discrimination, racism, and isolation may serve to increase feelings of inferiority, low-self-esteem, and IP for some Black students. Under this theoretical framework the current study proposed a model examining the indirect effect of self-esteem on the relationship between racial identity and IP. Previous literature has identified a positive association between a positive racial identity and self-esteem. There is also a well-established inverse relationship between self-esteem and IP; thus, the hypothesis for the current
study was that racial identity would be associated with increased self-esteem, which would then be associated with decreased levels of IP.

Data analysis revealed support for the hypothesis. In a sample of Black college students, students who felt positively towards Blacks and their membership in the group were more likely to have higher self-esteem, and subsequently lower levels of IP. Previous literature has identified a positive association between a positive racial identity and self-esteem for Black’s. This relationship was supported in the current study. One theoretical explanation for this relationship is the insulation theory which posits that Black’s self-esteem is derived from their view of other Blacks and not how others view Blacks. Theoretically, this allows Blacks to maintain and protect self-esteem despite experiences of discrimination, racism, and the implications of negative stereotypes regarding Blacks. The widely studied inverse relationship between self-esteem and IP was also supported in the current study. Black college students with higher self-esteem tended to experience lower levels of IP. Research supports that individuals with high self-esteem are less likely to internalize failure to their self-worth. Internalizing failure and externalizing success is a key facet of IP. The findings suggest those Black students who feel positively towards Blacks and about being Black tend to have higher levels of self-esteem which subsequently limits experiences of IP.

The current study has some limitations that should be noted. The sample size was relatively small (N = 112) and gender differences could not be captured due to the limited number of males in the study. Although some studies have reported similar rates of IP among men and women, conclusions about gender differences in IP among Blacks has yet to be established. Future research should focus on understanding the differential effects of IP among Black men and women. This was a cross sectional study and thus inferences about causation
could not be made. Further, self-report measures were utilized to capture the study variables. Although self-report measures have been widely utilized in IP research, participant bias is likely to be present when using this data collection approach. Despite the limitations, the current study employed a culturally relevant framework and provided empirical evidence for the presence of IP among a sample of Black undergraduate students. Only two studies to date have examined IP among solely Black college student samples, which is particularly devastating considering the educational disparities for Blacks in higher education. An exploratory mediation model was proposed to understand the underlying mechanisms of IP among this population as well as identify potential ways to limit the presence of IP.

The racially homogenous composition of PWI may increase Blacks feelings of not belonging to or fitting in the college environment and possibly increase feelings of IP. Future research should examine group differences in IP between students attending PWI and HBCU. It is likely that racial identity attitudes and feelings of IP may differ between students at these institutions. Gender differences could not be captured due to the limited number of males in the study. Although some studies have reported similar rates of IP among men and women, conclusions about gender differences in IP among Blacks has yet to be established. Black males are underrepresented in higher education and lag behind their black female peers in degree attainment. Perhaps Black males may be more likely to experience feelings of academic fraudulence and low self-esteem. Future research should focus on understanding the differential effects of IP among Black men and women.

The current study has both clinical and practical implications. Addressing the current gap in the literature, the study provided additional empirical evidence for the presence of IP among Blacks. IP has found to be a prominent obstacle for many high achieving individuals and could
possibly be a mechanism impacting degree attainment for Black college student. The limited research on the effects of IP among Black students is disheartening. This exploratory study provides a foundation for future mediation research to reach conclusions about the underlying mechanisms of IP and ways to decrease IP experiences among Black college students. The results of the current study suggest that clinicians and educators should identify opportunities to promote positive racial identity development among Black college students in an effort to strengthen self-esteem, and subsequently decrease experiences of IP. A possible starting point is to create an inclusive campus environment in an effort to decrease experiences of discrimination and racism for Black students.
References


Gasman, M., Lundy-Wagner, V., Ransom, T., & Bowman, N., III (2010). Unearthing promise and


Twenge, J. M., & Crocker, J. (2002). Race and self-esteem: Meta-analyses comparing Whites, Blacks,
Table 1  
*Sample Demographics*

<table>
<thead>
<tr>
<th>Demographics</th>
<th>n (%)</th>
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<tr>
<td><strong>Gender</strong></td>
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<td>Female</td>
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<td>Male</td>
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<td>Freshman</td>
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<tr>
<td>Senior</td>
<td>18 (16.1)</td>
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<tr>
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<td>Engineering Education</td>
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<td>Arts &amp; Humanities</td>
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<td>Physical Sciences</td>
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<td>0.0-2.4</td>
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<td>48 (43.6)</td>
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<td>3.0-3.5</td>
<td>35 (31.8)</td>
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<td>3.6+</td>
<td>12 (10.9)</td>
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<td>1. Racial Identity</td>
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<td>2. Self-Esteem</td>
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<tr>
<td>3. Impostorism</td>
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Note. The N for all measures was 112.
* p < .01.
Figure 1: Self-esteem mediating the relationship between Private Regard and IP
Note: Path a: the effect of x on m. Path b: the effect of m on y, controlling for the effect of x. Path c: the total effect of x on y. Path c': the direct effect of x on y, controlling for the effect of m.