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Does Race Still Matter?: A Post Bowl Championship Series (BCS) Era Examination of Student Athletes' Experiences at a Division I Historically Black College/University (HBCU) and Predominantly White Institution (PWI)

Joseph N. Cooper, Ph.D.

University of Connecticut

Shaun Dougherty, Ph.D.

University of Connecticut

The purpose of this study was to conduct a cross sectional analysis of Black and non-Black student athletes' experiences both within and between a Division I historically Black college/university (HBCU) and predominantly White institution (PWI) in the post Bowl Championship Series (BCS) era to identify key factors associated with their academic performance and any observable differences in experience in college and educational goal commitments. Previous research suggested the campus climate and racial composition at an institution greatly influences the quality of student athletes' college experiences and academic outcomes particularly for marginalized groups such as Black student athletes at PWIs (Brooks & Althouse, 2000, 2013). Yet, there is a dearth of contemporary research comparing the experiences of Black student athletes with their non-Black student athlete peers at HBCUs and PWIs. Participants in this study included 553 Division I student athletes (147 at the HBCU and 406 at the PWI) across 10 sports. Comeaux & Harrison's (2011) conceptual model for student athlete academic success was incorporated as a framework. Key findings revealed race continues to serve as a mitigating factor in the post BCS era regarding the quality of student athletes' engagement, relationships, and satisfaction at a Division I HBCU and PWI. Implications for policy and practice are discussed.

In recent years, the National Collegiate Athletic Association (NCAA) and its Division I member institutions faced increased scrutiny regarding their overemphasis on athletic commercialism at the expense of their educational values and student athletes' holistic well-being (Benedict & Keteyian, 2013; Southall & Nagel, 2010; Thelin, 1996). More specifically, a primary charge against these institutions, particularly predominantly White institutions¹ (PWIs), focused on how many of them fail to cultivate campus climates that are conducive for facilitating positive educational outcomes for Black² student athletes (Brooks & Althouse, 2000, 2013). Evidence of these poor educational outcomes are illustrated in the persistent academic performance gap between Black student athletes and their non-Black student athlete peers (NCAA, 2013).

An abundance of the previous research on Black student athletes at Division I PWIs collectively found the campus climates at these institutions to be unwelcoming and unsupportive of Black student athletes' holistic development (Benson, 2000; Bernhard, 2014; Martin, Harrison, Stone, & Lawrence, 2010; Melendez, 2008; Sellers, 1992; Singer, 2009). This problem is exacerbated for Black student athletes who experience multi-layered marginalization as a result of the intersection of their race/ethnicity, gender, and athletic status (Eitzen, 2000). In contrast to the aforementioned studies at PWIs, research on Black student athletes' experiences at historically Black colleges and universities (HBCUs) has revealed that the unique educational and sociocultural environments these institutions were effective at cultivating higher levels of academic achievement, institutional commitment, and sense of belonging among this subgroup of student athletes (Charlton, 2011; Cooper, 2013; Cooper & Hawkins, 2014a, 2014b; Hodge, Collins, & Bennett, 2013). Notwithstanding these encouraging findings, there is a lack of contemporary research that has comparatively examined the experiences of Black and non-Black student athletes at HBCUs and PWIs (American Institutes for Research, 1989). Thus, the purpose of this study was to conduct a cross sectional analysis of Black and non-Black student athletes' experiences both within and between a Division I HBCU³ and a PWI in the post Bowl Championship Series (BCS) era to identify any observable differences in their experiences and identify key factors associated with their academic performance in college and educational goal commitments.

Black and Non-Black Student Athletes' Experiences at HBCUs and PWIs

Despite the fact that there are a plethora of studies that examined the experiences of Black students (not exclusively athletes) at HBCUs and PWIs (Allen, 1992; Allen, Epps, &

¹ For the purposes of this study, a HBCU was defined as an institution of higher education in the U.S. established prior to 1964 with the primary purpose of providing educational opportunities to Black Americans and whose current student population is at least 50% Black and a PWI was defined as institution of higher education in the U.S. that historically excluded and/or limited large numbers of Black students from enrollment prior to 1964 and whose current student population is at least 50% White.

² The terms "Black" and "African American" will be used interchangeably throughout the manuscript.

³ Both institutions in the current study are four-year public universities. The terms "HBCU" and "PWI" in the singular form will be used throughout the manuscript to denote each institution type as consistent with previous descriptions and more readily identifiable labels associated with each institution type.

Haniff, 1991; Cokley, 2000; Fleming, 1984; Seifert, Drummond, & Pascarella, 2006), there is a conspicuous dearth of literature that directly examined the experiences of Black student athletes and their non-Black student athlete peers across these two distinct educational and sociocultural environments (American Institutes for Research, 1988, 1989). The seminal study that examined Black and non-Black student athletes' experiences at Division I HBCUs and PWIs was initiated by the NCAA and conducted by the American Institutes for Research in the late 1980s. Using data from a national survey of 4,083 student athletes from 42 Division I institutions (including 39 PWIs and 3 HBCUs), the American Institutes for Research (1988, 1989) studies revealed Black student athletes at HBCUs were less likely to express feelings of being different from others, less likely to report experiences with racial isolation, and more likely to report having control over their lives compared to their Black and non-Black peers at PWIs. These findings can primarily be attributed to the fact that HBCUs enroll a large number of Black students in the general student body and reinforce Black cultural significance through their mission statements, curricula, administrator and faculty racial composition, and social events, which collectively enhance Black students' (including athletes) sense of belonging (Allen et al., 2007). Contrarily at PWIs, Black students are consistently underrepresented in the general student body and Black cultural identities are often times relegated to a single cultural center if recognized and celebrated at all on campus (Gallien & Peterson, 2005).

Additional findings from the American Institutes for Research (1988, 1989) studies highlighted how Black student athletes constituted a large percentage of the football and men's basketball student athletes (37% of the football and 56% of men's basketball) and were more likely than their White student athletes peers to enter college with poorer academic preparation (lower high school grade point averages (GPAs) and scholastic aptitude test (SAT) scores). Enrolling academically underprepared student athletes implies that they were most likely recruited to these institutions (a majority of which were PWIs) for their athletic abilities as opposed to being recruited for their academic prowess. As such, several scholars have argued Division I PWIs were engaging in athletic exploitation and academic neglect and are not structured to facilitate positive educational outcomes for Black student athletes (Hawkins, 2010; Sellers, 2000).

Next, instead of comparing student athletes' experiences across institutional types (HBCUs vs. PWIs), researchers have subsequently focused on exploring the experiences of Black student athletes (not compared to other racial groups) at HBCUs and PWIs (Person & LeNoir, 1997; Steinfeldt, Reed, & Steinfeldt, 2010) and Black and White student athletes at PWIs (not compared to HBCUs) (Sellers, 1992; Potuto & O'Hanlon, 2006). Related to Black student athletes' experiences at HBCUs and PWIs, Person and LeNoir (1997) found that both African American male student athletes at both institutional types were generally satisfied with their overall experiences, but participants at HBCUs experienced more frequent interactions with faculty than their peers at PWIs. These findings are consistent with the literature on Black students' experiences at HBCUs that discovered faculty engaged in frequent interactions with them both inside and outside of class and demonstrated a commitment to their success in college and beyond (Allen et al., 2007; Gallien & Peterson, 2005). In another study on identity salience, Steinfeldt et al. (2010) found that Black male football student athletes at HBCUs possessed lower levels of athletic identity and were more likely to identify with the Nationalist Ideology from the multidimensional inventory of Black identity (MIBI) (Sellers, Smith, & Shelton, 1998)

than their Black male football student athlete counterparts at PWIs. In other words, Black male football student athletes at HBCUs were more likely to perceive themselves as holistic individuals with strong racial identities rather than simply as talented athletes than their peers at PWIs. Hence, both of the aforementioned studies provided empirical evidence to support the notion that HBCUs cultivate more positive learning environments for Black student athletes in terms of relationships with faculty and holistic identity development.

Additional research on Black and White student athletes' experiences at PWIs has also offered insightful findings for understanding the experiences of student athletes across racial groups at different institution types (Sellers, 1992; Potuto & O'Hanlon, 2006). For example, Sellers (1992) found White student athletes were more likely than African American student athletes to enroll at PWIs with higher high school GPAs and earn higher GPAs while enrolled, yet there were no significant differences in expressed academic motivation (i.e., intentions of earning a degree) or time spent on studying while in college between student athlete subgroups. These findings highlight the disparity in academic preparation prior to college between many Black and White student athletes as well as the unique academic challenges and experiences facing the former group while in college (Sellers, 2000). More recently, Potuto and O'Hanlon (2006) found that a larger percentage of African American student athletes at Division I PWIs were more likely to focus on and influenced by athletics, identify as athletes, feel they would become professional athletes, and possess reservations about their college experiences compared to White student athletes. Hence, the salience of athletic identities and subsequent lack of institutional attachment appear to be stronger among African American student athletes than White student athletes at PWIs.

Interestingly, aside from the aforementioned intra-PWI cross racial studies, there is scarcity of research on White student athletes' experiences at HBCUs (either exclusively or comparatively to their Black student athlete peers) and thus the scope of the current study included this student athlete subgroup to better understand their college experiences and build on the literature on intercollegiate student athletes. As such, the collective findings from the literature reveal Black and non-Black student athletes at HBCUs and PWIs have unique academic, athletic, and social experiences. Furthermore, each of the previous studies offered a call for additional exploratory research to examine various aspects of Black and non-Black student athletes' experiences at different institutional types (i.e., HBCUs and PWIs) in an effort to identify key facilitators for their academic performance and positive college experiences as well as to better understand the extent race influences these experiences and outcomes. The current study fills this gap.

A Post BCS Era Examination of Race, Institution Type, and Student Athletes' Experiences

It has been over a quarter century since the American Institutes for Research (1988, 1989) studies on Black and non-Black student athletes' experiences at Division I institutions was published and the landscape of intercollegiate athletics has changed drastically (e.g., widespread conference realignment, the passage of the NCAA's Academic Performance Program (APP) including academic progress rates (APRs) and graduation success rates (GSR) standards, increased commercialization of college sports by way of exorbitant March Madness contracts

and BCS bowls broadcasting rights and related sponsorships, etc.) (Dosh, 2013). The BCS era, which began in 1998, signified the growing prioritization of the athletic commercialism institutional logic adopted among many Division I institutions (Southall & Nagel, 2010). Evidence of this dominant institutional logic among Division I schools (a majority of which are PWIs) is found in the recent 12-year broadcasting rights deal with the Entertainment and Sports Programming Network (ESPN) and BCS conferences worth an estimated \$500 million (Schroeder, 2012).

Despite the fact that previous studies examined Division I student athletes' experiences at PWIs and HBCUs prior to the BCS era (American Institutes for Research, 1988, 1989), the authors surmise the increased commercialization of college sports particularly among Division I Football Bowl Subdivision (FBS) schools (including the PVI in the current study) contributes to higher levels of athletic role engulfment, social isolation, and the devaluing of academics particularly among Black student athletes at PWIs who are persistently overrepresented on athletic teams and underrepresented in the general student body at PWIs (see Brooks & Althouse [2000, 2013] for a comprehensive discussion on this trend) compared to their peers (both Black and non-Black) who attend less commercialized limited resource institutions⁴ (LRIs) such as Division I HBCUs (including a school in the current study) (Kirkpatrick et al., 2014; Sack & Staurowsky, 1998; Southall & Nagel, 2010).

Furthermore, although commercialization has been present within U.S. intercollegiate athletics since its inception in the mid-1800s, the post-BCS era is unique because it marked a drastic shift in athletic commodification and prioritization insofar as widespread conference realignment in terms of abandoning traditional regional conferences for wealthier television conferences did not occur until the early 2000s once the BCS era was thoroughly established (Hinnen, 2013). This shift also resulted in increased travel time for teams across all sports at these institutions, which resulted in many student athletes missing more classes and/or being physically and mentally drained when they did attend class or work on academic related tasks (Etzet, 2009). As previously noted, the most recent cross sectional study comparing the experiences of Black and non-Black student athletes at HBCUs and PWIs was conducted in the late 1980s, which was well before the BCS era began (American Institutes for Research, 1988, 1989); therefore, there is a need for a contemporary study that examines the holistic college experiences (academic, athletic, and social) among Black and non-Black student athletes at a Division I HBCU and PVI across multiple sports (not just football and men's basketball) to determine whether and to what extent race and institutional type influence their educational and psychosocial outcomes.

A Conceptual Model of Student Athlete Academic Success

Building on Tinto's (1975, 1987, 1993) theory of student attrition/departure, Comeaux and Harrison (2011) proposed a model for college student athlete academic success that attempts to explain the relationship between student athletes' pre-college backgrounds, college experiences, and academic performance. Tinto's (1975, 1987, 1993) longitudinal model of

⁴ Limited resource institutions are defined as NCAA non-FBS Division I that rank within the bottom 10 percent of resources as measured by per capita institutional expenditures, athletics department funding, and Pell Grant aid (Lawrence, 2012).

institutional departure model is comprised of six components: a) pre-college attributes (family background, skills and abilities, and primary and secondary schooling experiences), b) initial/pre-college goals and commitments (educational and institutional), c) institutional experiences (academic system and social system), d) college integration (academic and social systems), e) post-college goals and commitments (educational and institutional), and f) outcome (departure). Comeaux and Harrison's (2011) model contains the same six phases with the addition of subcomponents related specifically to student athletes. One of these additional subcomponents is sport commitment, which is inserted in the initial/pre-college and post-college goals and commitments phases. Sport commitment refers to the "physical and psychological time and energy that a student-athlete devotes to his or her sport" (Comeaux & Harrison, 2011, p. 238). Another additional subcomponent is sport participation within the institutional experiences phase, which includes experiences such as interactions with coaches as well as involvement with the Scholar-Baller paradigm (Harrison et al., 2010).

The final difference between Tinto's (1975, 1987, 1993) model and Comeaux and Harrison's (2011) model is the outcome variable. For the latter model (i.e., Comeaux & Harrison, 2011), academic success is measured by GPA, intellectual development, matriculation, and graduation whereas departure was used on the former (Tinto, 1975, 1987, 1993). Similar to the model for student attrition/departure (Tinto, 1975, 1987, 1993), Comeaux and Harrison's (2011) model for college student athlete academic success viewed academic and social integration as pivotal to college student success. More specifically, Comeaux and Harrison (2011) posited "student-athlete's academic success is based primarily on a set of individual characteristics and dispositions, with influence from the social and academic systems within which the student-athlete operates" (p. 237). The authors asserted that increased levels of interactions with the academic and social aspects of the college experience (e.g., frequent faculty-student athlete interactions, consistent involvement in educationally purposeful activities, participation in study groups, etc.) not only enhance academic performance, but also career goals and institutional commitments.

Given the focus of the current study on understanding the differences between Black and non-Black student athletes' experiences at a Division I HBCU and PWI as well as the identification of key factors associated with their academic performance and educational goal commitments, the incorporation of Comeaux and Harrison's (2011) model was appropriate rather than Tinto's (1975, 1987, 1993) model for two primary reasons. One, Comeaux and Harrison's (2011) model incorporates subcomponents unique to student athletes such as sport goals and commitments (along with educational and institutional goals and commitments) and sport participation experiences within the social system. Two, the outcome variable of academic success, as opposed to student departure, was consistent with the focus of the current study. Using survey responses from the Student Athlete College Experiences Questionnaire (SACEQ) (described in greater detail in the data collection section), we aligned questions with the theoretical constructs in Comeaux & Harrison's (2011) model. Specifically, we incorporated variables related to student athletes' pre-college backgrounds such as their motivations for choosing to attend college, general demographics, and initial commitments toward educational and sport goals. We also included measures of institutional systems (academic, athletic, and social), levels of integration (satisfaction with each system), commitments (reported frequency and type of involvement), and academic success (self-reported college GPA and commitment to

educational goals). Given the exploratory nature of the current study, we chose to investigate the following research questions:

1. Are there any differences in the quality of college experiences (relationships, engagement, and satisfaction) among student athletes based on racial identification and college institution type?
2. Are there any differences in terms of frequency and type of involvement (academic, athletic, and social) among student athletes based on racial identification and college institution type?
3. Are there any differences between the educational goal commitments among student athletes based on racial identification and college institution type?
4. Is there an association between academic performance and educational goal commitments and the measures of relationships, engagement, and satisfaction among student athletes based on racial identification and college institution type?

Methods

Site Selection and Participants

Criterion sampling methods were incorporated in the current study (Fink, 2009). Criteria for institutional selection included: a) active member institutions of the NCAA's Division I, b) classified as either a HBCU or PWI, and c) possess a strong academic profile as measured by the United States (U.S.) News and World Report rankings for U.S. colleges and universities. Only NCAA Division I institutions were targeted for this study because institutions at this level receive the highest level of public scrutiny related to undermining their educational missions due to athletic commercialization (Benedict & Keteyian, 2013). In addition, a FBS PWI and a LRI HBCU were selected to examine the differences between student athletes' college experiences within two distinct educational and sociocultural environments and different fiscal profiles in terms of athletic department resources (Kirkpatrick et al., 2014). Only institutions with strong academic profiles were selected because we sought to investigate student athletes' experiences at postsecondary institutions that prioritized academics through various measures such as student graduation rates and retention rates. Strong academic profiles were defined as institutions that ranked among the top 30 within their respective institutional classifications with the most recent U.S. News & World Report rankings (U.S. News & World Report, 2014). For example, the HBCU in the current study was ranked among the top 30 HBCUs in the U.S. Similarly, the PWI was ranked among the top 30 public institutions in the U.S. (U.S. News & World Report, 2014). Given the differences in institutional funding, the authors chose to use the U.S. News & World Report's (2014) institutional classifications to determine the academic standing of each institution. Once institutions who met the aforementioned criteria were identified, the primary researcher contacted institutional representatives for consent to conduct the current study. Given the scope of the study, once two institutions (one Division I HBCU and one Division I PWI) who met the aforementioned criteria agreed to participate in the study the primary researcher submitted institutional review board (IRB) applications with both institutions and retrieved approval prior to data collection.

Participants in the current study (N=553) included student athletes from both institutions (147 at the HBCU and 406 at the PWI). Thus, the effective response rate for the current study was 60% (553 out of 924). The response rate from the HBCU was 49% (147 out of 325), whereas the response rate at the PWI was 69% (406 out of 599). The difference in response rates may be either random or systematic. The respective rates of response and gap between the institutions matters insofar as the rates reflect characteristics of the schools or their students, which are directly relevant to the inferences of interest in this study. That is, if the additional 20% of student athletes who responded at the PWI were systematically different on the measures of interest in this study from those who did not respond at the HBCU, the conclusions drawn may be compromised. Despite these differences, both schools are classified as Division I institutions within the NCAA and thus this divisional similarity was a key area of inquiry for the current study.

We also limited our analysis sample to those student athletes who responded to the questions that addressed educational goal commitments and academic performance in college. As a result, from our original sample of 577, only 553 student athletes were included in the current analysis. Student athletes dropped from the original sample based on this missing data were proportionately representative of the overall sample (roughly 2/3 from the PWI, and roughly 1/3 HBCU). For the purposes of this study, we focused on the comparison of groups of student athletes defined by self-identified race and institution type. We first defined and compared a group of student athletes at the HBCU relative to those at the PWI. This comparison was conducted to examine the impact of institutional type on student athletes' experiences. The second key comparison consisted of Black student athletes to their non-Black student athlete peers at both institution types and Black student athlete peers at the alternative institutional type (i.e., HBCU vs. PWI). This comparison was undertaken to examine differences by race on student athletes' experiences in each institutional setting. We note 90 percent of non-Black students are in fact White (353 of 393). Across the PWI and HBCU we had, respectively, 52 (13% of PWI respondents) and 129 (81% of HBCU respondents) Black student-athletes respond. Our results are not sensitive to whether we exclude the 40 respondents who identify as Asian (5), Latino (11) or Multi-Racial (24).

Procedure

IRB approval was retrieved from both institutions. Following IRB approval, the primary researcher contacted the Associate Athletic Director at the HBCU and the Director of Student Athlete Academic Support Services (SAASS) at the PWI to explain the purpose and nature of the study and request approval to solicit participation from student athletes at each respective institution. Both administrators agreed and the primary researcher sent the Qualtrics survey link for the SACEQ to both administrators for dissemination. Within the Qualtrics survey link, a consent form was placed at the beginning of the survey and detailed information about the purpose and the nature of the study. Data collection occurred during the 2013-2014 and 2014-2015 academic years.

Data Collection Methods

The Student Athlete College Experiences Questionnaire (SACEQ) is an 83-item instrument (74 primary items with 9 sub-items) designed to measure the background characteristics and level of positive college experiences of student athletes. The SACEQ is comprised of 55 five-point Likert scale questions (interval level), 16 multiple-choice questions (ordinal level), one ranking order question with nine sub-items (ordinal level), nine open-ended questions (non-ratio fill-in-the blank), and two yes/no questions (nominal level) (Fink, 2009). Both deductive (pre-established theories and instruments) and inductive (practical knowledge) reasoning processes were incorporated in the development of the SACEQ. In an effort to establish construct validity, the construction of the SACEQ was influenced by previous instruments designed to measure college student development (Astin, 1993, 1999), student athletes' college experiences (American Institutes for Research, 1988, 1989), and level of athletic identity (AIMS) (Brewer, Van Raalte, & Linder, 1991; Martin, Eklund, & Mushett, 1997).

Several modifications to items from the aforementioned instruments were incorporated in the SACEQ such as the phrasing of item questions in the affirmative (e.g., "I have positive relationships with my professors" (item 28), "I have positive relationships with my teammates" (item 53), etc., which was consistent with the anti-deficit approach (Harper, 2012) towards instrument construction as well as a means to ascertain a better understanding of factors associated with student athletes' positive college experiences. Moreover, additional SACEQ items were included and/or updated from the literature and SACEQ pilot studies (these pilot studies included SACEQ administration as well as focus group and individual interviews) to disaggregate the college student athlete experience along academic, athletic, and social areas as well as with a specific disaggregation of items pertaining to levels of relationships, engagement, and satisfaction as opposed to aggregating these items as commonly performed in previous research (American Institutes for Research, 1988, 1989). Additional modifications included item questions pertaining to student athletes' in-season and out-of-season involvement, which pilot study participants highlighted as an important distinction to include in the SACEQ (items 12-21).

Construct validity was ascertained through the review of the instrument constructs by two scholars in the field of sport education, two scholars in the field of college student development and higher education student affairs, and two scholars with an expertise in instrument development. Content validity was attained through the administration of the SACEQ in a pilot study along with a single focus group of student athletes at one NCAA institution and a follow up study along with three focus groups and four individual interviews with student athletes at another NCAA institution (Fink, 2009). In the present study, the following reliabilities were identified: a) academic experiences ($\alpha = 0.81$), athletic experiences ($\alpha = 0.85$), and social experiences ($\alpha = 0.81$). The primary researcher refined the SACEQ for the current study based the previous studies, reliability results, and feedback from the aforementioned student athletes and scholar reviewers. The current data set and additional data will also be subsequently analyzed to further instrument validation.

Data Analysis

Research Design

The cross sectional research design for the current study was appropriate given the absence of an existing national dataset that captures a representative random sample of students in both PWI and HBCU settings. In particular, the comparative nature of all four research questions and the correlational nature of research question number four suggest that using survey responses that capture variation in school type and student racial identity is an appropriate first step towards answering these questions. In particular, the use of t-tests allowed for the exploration of mean differences between student athletes across racial groups and institutional types regarding their college experiences (RQ1), frequency and type of involvement in college (RQ2), and educational goal commitments (RQ3) is appropriate. Regression analyses were performed to examine the nature and strength of associations between participants' academic performance (high school and college), educational goal commitments (commitment to academic major, earning a degree, and attending graduate school), and the nature of college experiences (academic, athletic, and social – relationships, engagement, and satisfaction). These regression-based estimates allowed for the comparisons of interest while also controlling for observable factors that might also influence the key relationships of interest, differences in experience by race and school type.

Key Question Predictors

In all analyses, the self-identified race of the student athlete as well as the indicator for whether they attended a HBCU or PWI were the key question predictors. To support our analyses, we also generated composite measures of student athletes' experiences (engagement, relationships, and satisfaction), involvement, educational goals, and academic performance as key outcomes of interest. To answer our first research question, we used the SACEQ to capture the academic, athletic, and social dimensions of student athletes' relationships with others at the university, engagement in their university, and overall satisfaction with their college experiences (see Table 1 for a mapping of these dimensions and the associated questions from the SACEQ that are hypothesized to map to these dimensions. For each of the three dimensions of experiences, we created three sub-measures (relationships, engagement, and satisfaction). To construct these measures, we generated the arithmetic mean of the responses given by each student athlete across the questions that mapped onto these dimensions⁵. Each of these measures is continuous and can take on a value between one and five with larger values corresponding to higher levels of relationships, engagement, and satisfaction.

To answer our second and third research questions, we focused on student athletes' level measures of involvement along the academic, athletic, and social dimensions as well as student athletes' responses to questions pertaining to their educational goals. To generate these measures

⁵ A principal components analysis (PCA) for each sub-measure revealed that treating responses as part of one unified construct was not unreasonable. The PCA also generally supported the conclusion that weighting each question equally was reasonable.

we duplicated the approach previously mentioned with the key question predictors for research question one by creating mean values of student athletes' responses on the questions relating to these dimensions of involvement and goals, respectively. The responses to these questions asked student athletes to select the most appropriate range of total hours spent on each dimension of involvement. We recoded these categorical answers into a continuous measure of time by recoding each categorical response to correspond to the midpoint of the range of hours associated with the student athlete's response. Greater numbers of hours of participation are associated with higher levels of involvement. Finally, in research question four, we measured outcomes with student athletes' level measure of educational goals as well as student athletes' self-reported college GPA at the time of data collection. Educational goals are a continuous measure generated from responses to multiple questions on a similar Likert scale. This measure of goals is continuous and larger values on this measure area associated with higher levels of educational goal commitment. College GPA was measured on a continuous scale ranging from 0 to 4. We constructed this variable from student athletes' self reports of which the range of values contained their current GPA. This data was then recoded with their college GPA as the midpoint of that range.

Analytic Approach

To answer research questions one, two, and three, we used descriptive data analysis techniques to establish whether there were differences in the average levels of our outcomes for each question based on student athletes' self-reported race and institution type. Our data did not allow us to infer causal relationships and so we were interested in understanding whether there appeared to be discernible differences in the experiences of Black and non-Black student athletes both within and across respective institution types. We used a regression-based framework to distinguish among average differences between our key groups of interest for research questions one through four. The model we fit to answer our first three research questions takes the form:

$$Y_{is} = \beta_0 + \beta_1 \text{BlackHBCU}_{is} + \beta_2 \text{BlackPWI}_{is} + \beta_3 \text{NotBlackHBCU}_{is} + \varepsilon_{is} \quad (1)$$

In this model, β_0 represents the mean level of the response variable, indicated by the generic Y_{is} , for a non-Black student athlete i enrolled in the PWI school s . The coefficient β_1 then represents the mean difference in the response variable between Black student athletes at the HBCU and the non-Black student athletes at the PWI. The other two coefficients are interpreted in the same manner with the reference group always being the non-Black student athletes at the PWI. To examine whether there are differences between the remaining pairwise group comparisons (e.g., Black student athletes at the PWI and non-Black student athletes at the PWI) we conducted additional t-tests for the difference between their respective means on each response variable Y .

To answer research question four, we also employed a multiple regression analytic framework to establish the associations between our outcomes of interest, educational goals and college GPA, and our explanatory variables of relationships, engagement, and satisfaction when controlling for race, institution type, family income, whether a student athlete participated in a

revenue-generating sport, and indicators for a student athlete’s year of enrollment in college. We fit the following statistical model to answer research question four:

$$Y_{is} = \beta_0 + \beta_1 \text{Relate}_{is} + \beta_2 \text{Engage}_{is} + \beta_3 \text{Satisfy}_{is} + \beta_4 \text{FamInc}_{is} + \beta_5 \text{ProfitSport}_{is} + \gamma' \text{CollYr}_{is} + \epsilon_{is}$$

As with (1), the outcome Y_{is} , was a generic placeholder for our two outcomes of interest, β_1 , β_2 , and β_3 represented the coefficients of interest and are the associations between our outcomes and the primary predictors relationships (Relate), engagement (Engage), and satisfaction (Satisfy), respectively. As statistical control we also included a continuous measure of family income (FamInc), an indicator for whether a student athlete participates in a profit-generating sport (ProfitSport) (football or men’s basketball), and a vector of indicators for a student athlete’s year in college (CollYr) (e.g. – first year). As above, we identified the heteroskedasticity robust student-level error term as ϵ_{is} .

Results

Our analysis corresponding to research question one suggested several important differences among the academic, athletic, and social experiences of student athletes’ based on their race and institution type. For instance, Black student athletes at the PWI scored lower on many measures of experiences relative to their non-Black counterparts at the same school, particularly with respect to athletic relationships, academic and athletic engagement, and academic, athletic, and social satisfaction (See Table 1). In contrast, Black student athletes at the HBCU reported they were more satisfied socially with campus environment, off-campus environment, social opportunities at school, and overall social experiences. Non-Black student athletes at the HBCU showed difference from their peers at the PWI by reporting stronger academic relationships.

Table 1
Differences in Experience by Race and College Type

	(1) Athletic	(2) Relationships Academic	(3) Social	(4) Athletic	(5) Engagement Academic	(6) Social	(7) Athletic	(8) Satisfaction Academic	(9) Social
Non-Black, HBCU	0.112 (0.141)	0.338** (0.131)	-0.011 (0.119)	-0.119 (0.108)	0.041 (0.116)	0.121 (0.154)	0.055 (0.159)	-0.062 (0.136)	-0.137 (0.136)
Black, PWI	-0.214* (0.115)	-0.077 (0.107)	0.022 (0.098)	-0.300*** (0.089)	-0.219** (0.094)	-0.072 (0.125)	-0.261** (0.130)	-0.202* (0.111)	-0.260** (0.111)
Black, HBCU	-0.029 (0.187)	-0.255 (0.174)	0.055 (0.159)	0.235 (0.144)	0.144 (0.154)	0.183 (0.204)	0.001 (0.211)	0.117 (0.181)	0.476*** (0.181)
Non-Black, PWI	4.300*** (0.132)	3.578*** (0.123)	3.951*** (0.112)	4.368*** (0.102)	3.795*** (0.109)	3.080*** (0.144)	3.856*** (0.149)	3.849*** (0.128)	4.021*** (0.128)
N	553	553	553	553	553	553	553	553	553

Notes: Heteroskedasticity robust standard errors clustered by initial middle school are in parentheses (* p<.10 ** p<.05 *** p<.01). The coefficients shown are generated by linear regression and illustrate differences in the dependent variable by race and school type.

The results of differences in academic, athletic, and social involvement among student athletes of different races and across institutional types also provided evidence of some interesting differences, as illustrated in Table 2. Descriptively, results indicated that all student athletes spent the most time on academics, followed by athletic and social activities, which is consistent with conventional wisdom. Although, it is important to note that gender and sport participation differences regarding time spent on athletics were beyond the scope in the current study. The most noteworthy, and statistically significant, differences by race and institution type relates to Black student athletes at the HBCU reporting that they spend more than two-hours less on athletics on a weekly basis compared to all other groups, while spending comparable amounts of time on academics and in social activities.

As presented in Table 3, our overall results related to research question three suggest that educational goals are similar across racial groups and both institution types. We observed, however, that Black student athletes at the PWI were less athletically oriented and had modestly lower educational goals relative to the very high levels exhibited by their non-Black peers at the same institution. In addition, Black student athletes at the HBCU appeared to have modestly higher educational goals and athletic orientation, though these differences are not statistically significant in our sample. Lastly, our findings related to research question four highlighted some important elements of how demographic and institutional characteristics relate to student athletes' academic performance as measured by college GPA as well as with respect to their educational goals. In Table 4, we report the results of fitting model (2) above with college GPA as the outcome in column (1) and educational goals as the outcome in column (2). We noted that high-school GPA has the strongest and only significant association with college GPA (controlling for other factors), which is consistent with previous research. Interestingly, and most germane to the current study, we found evidence that satisfaction and relationships are also associated with higher college GPA, whereas there was no clear (and in fact any association is negative) association between college GPA and engagement. This contrasts with our model where we used educational goals as the outcome, where engagement was significantly and positively associated with educational goals, but relationships and satisfaction did not appear to be associated with educational goals. Importantly, both college GPA and educational goals are higher (though imprecise), controlling for other factors, among student athletes at the HBCU. Also, noteworthy is that GPA and educational goals appear to be lower overall for student-athletes who participate in the revenue-generating sports of football and men's basketball.

Table 2 - *Differences in Types of Involvement by Race and College Type*

	(1) Athletic	(2) Academic	(3) Social
Non-Black, HBCU	0.326 (0.755)	0.581 (0.958)	-1.829** (0.756)
Black, PWI	0.713 (0.596)	-0.666 (0.756)	0.840 (0.597)
Black, HBCU	-2.369** (1.006)	-1.044 (1.277)	0.979 (1.008)
Non-Black, PWI	11.236*** (0.207)	13.350*** (0.263)	8.023*** (0.207)
N	553	553	553

Notes: Heteroskedasticity robust standard errors clustered by initial middle school are in parentheses (* p<.10 ** p<.05

*** p<.01). The coefficients shown are generated by linear regression and illustrate differences in the dependent variable by race and school type

Table 3

Differences in Educational and Athletic Orientation and Educational Goals by Race and College Type

	(1) Academic Orientation	(2) Athletic Orientation	(3) Educational Goals
Non-Black, HBCU	0.200 (0.158)	-0.227 (0.151)	0.028 (0.141)
Black, PWI	0.099 (0.125)	-0.287** (0.119)	-0.333*** (0.111)
Black, HBCU	-0.064 (0.211)	0.174 (0.201)	0.251 (0.188)
Non-Black, PWI	4.024*** (0.043)	3.623*** (0.041)	4.214*** (0.039)
N	553	553	553

Notes: Heteroskedasticity robust standard errors clustered by initial middle school are in parentheses (* p<.10 ** p<.05 *** p<.01). The coefficients shown are generated by linear regression and illustrate differences in the dependent variable by race and school type.

In Table 5, we display estimates of whether the associations between college GPA and educational goals and the three experience variables (relationships, engagement, and satisfaction) differ by race and institution type. When reporting these associations we still controlled for the same set of covariates articulated in model (2) and reported in Table 4. However, in Table 5 we report only the associations between the outcomes and experience variables for each race and institution type combination. Interestingly, our point estimates suggest that among Black student athletes at the PWI, there is a positive association between satisfaction and both outcomes, on average and when controlling for other student characteristics. However, there was a negative association between relationships and college GPA as well as engagement and college GPA. This stands in contrast to our estimates for Black student athletes at the HBCU who also had positive associations between satisfaction and college GPA, while satisfaction was negatively associated with educational goals. Moreover, for Black student athletes at the HBCU relationships and engagement were also positive associated with educational goals. For non-Black student athletes at the PWI, there was positive association between satisfaction and college GPA, but a negative association between relationships and college GPA. Findings also revealed a positive association between non-Black student athletes' engagement and educational goals. Conversely, there was a positive association between relationships and college GPA for non-Black student athletes at the HBCU as well as a positive association between satisfaction and educational goals.

Table 4 - *Academic Success and Educational Goals*

	(1) College GPA	(2) Educational Goals
HS GPA	0.968* (0.151)	0.392 (0.119)
Overall relationships	-0.239** (0.005)	0.039 (0.067)
Overall engagement	0.058 (0.236)	0.463* (0.058)
Overall Satisfaction	0.400* (0.064)	0.018 (0.007)
Black	-0.064 (0.078)	-0.028 (0.010)
HBCU	0.336 (0.127)	0.200 (0.042)
Family Income	0.000 (0.000)	0.000 (0.000)
Profitable Sport	-0.185 (0.095)	-0.168* (0.018)
N	553	553

Notes: Heteroskedasticity robust standard errors clustered by school are in parentheses (* $p < .10$ ** $p < .05$ *** $p < .01$). The coefficients shown are generated by linear regression and illustrate the relationship between the dependent and independent variables, on average.

Table 5 - *Factors Associated with Academic Success and Engagement with Differences by Race and Institution Type*

	(1) College GPA	(2) Educational Goals
Relationships, non-Black PWI	-0.264** (0.015)	-0.035 (0.019)
Engagement, non-Black PWI	-0.048 (0.033)	0.463** (0.026)
Satisfaction, non-Black PWI	0.427** (0.007)	-0.009 (0.018)
Relationships, Black PWI	-0.15** (0.006)	0.06 (0.035)
Engagement, Black PWI	-0.39** (0.237)	0.17 (0.041)
Satisfaction, Black PWI	0.55*** (0.004)	0.39*** (0.006)
Relationships, non-Black HBCU	0.69** (0.011)	-0.35 (0.087)
Engagement, non-Black HBCU	-0.38 (0.158)	0.21 (0.064)
Satisfaction, non-Black HBCU	0.09 (0.026)	0.61*** (0.001)
Relationships, Black HBCU	-0.39 (0.004)	0.23** (0.004)
Engagement, Black HBCU	0.46 (0.080)	0.49** (0.021)
Satisfaction, Black HBCU	0.38* (0.034)	-0.08** (0.003)
N	553	553

Notes: Heteroskedasticity robust standard errors clustered by school are in parentheses (* $p < .10$ ** $p < .05$ *** $p < .01$). The coefficients shown are generated using OLS. Heterogeneity in the relationships of interest by race and school type is indicated in the table as a linear combination of the relevant interaction terms with the indicator of treatment exposure.

In summary, satisfaction was positively associated with college GPA for all subgroups except non-Black student athletes at HBCUs. Relationships were negatively associated with college GPA for both racial groups of student athletes at the PWI (non-Black and Black). In contrast, relationships were positively associated with college GPA among the non-Black student athletes at the HBCU. Engagement was only positively associated with college GPA among Black student athletes at the HBCU. Related to educational goals, there was a positive association with engagement for the racial majority groups at each institution type (non-Black student athletes at the PWI and Black student athletes at the HBCU). On the other hand, satisfaction was positively associated with educational goals for the two racial minority groups at each institution type (Black student athletes at the PWI and non-Black student athletes at the HBCU). Interestingly, satisfaction was negatively associated with educational goals whereas

relationships were positively associated with educational goals for the Black student athletes at the HBCU.

Discussion

In concert with critics who doubt that the U.S. society and its social institutions are in a post-racial society (West, 1993), the findings from the current study revealed that race continues to serve as a mitigating factor in the quality of student athletes' educational experiences at postsecondary institutions in the post BCS era. Building on previous research, the uniqueness of the current study laid the fact that it was conducted in the post BCS era as well as it contrasted the experiences of student athletes' across racial groups and sport classifications (10 sports) both within and between a Division I HBCU and PWI. Furthermore, the current study also offered several unique findings compared to the previous literature. For example, one unique finding from the current study revealed Black student athletes (across 10 sports – not just football and men's basketball) at a Division I PWI possessed less salient athletic identities than their White student athlete peers at the same institution type. Another unique finding from the current study indicated that Black student athletes at a Division I HBCU reported spending less than two hours less per week on athletic related tasks than their peers across racial groups at the same institution and at the PWI. Yet another unique finding from the current study highlighted how non-Black student athletes at HBCUs experience levels of social isolation and cultural dissonance similar to those experienced by Black student athletes at PWIs, which has not previously been explored in the literature. All of these findings along with additional findings from the current study are discussed throughout this section.

The first research question sought to identify if there were any differences in the quality of college experiences (relationships, engagement, and satisfaction) among student athletes based on race and institution type. Findings revealed that Black student athletes at a Division I PWI reported less positive relationships, lower levels of engagement, and lower levels of satisfaction compared to their non-Black student athlete peers at the same institution. Previous research on Black student athletes at PWIs has found they encounter unique challenges as members of multiple marginalized groups attributed to their race, cultural/ethnic backgrounds, and athletic status; all of which contributed to their feelings of isolation and mistrust (Bernhard, 2014; Hawkins, 2010; Melendez, 2008; Singer, 2009). In addition, scholars have argued Black student athletes are often recruited to PWIs for athletic purposes with little to no regard for their academic and social needs, which further explains why the campus climate at the PWI fosters less positive developmental experiences and outcomes for this subgroup (Brooks & Althouse, 2000, 2013; Hawkins, 2010; Sellers, 2000). Particularly, in the post-BCS era where the stakes for fielding competitive athletic teams is at an all-time (e.g., the 12-year \$500 million ESPN-BCS conferences deal, the 14-year \$14 billion dollar NCAA March Madness deal, multimillion dollar bowl game and conference television and multimedia rights deals, etc. – see Dosh (2013) for a comprehensive overview), Division I PWIs are often times less concerned with cultivating positive educational environments for Black student athletes and more interested in exploiting them for their athletic prowess (Hawkins, 2010; Sellers, 2000). Hence, the findings from the current study indicate race still matters insofar as Black student athletes' (across 10 sports not just football and men's basketball) academic, athletic, and social experiences are concerned at Division I PWIs.

Conversely, findings related to Black student athletes at the HBCU indicated that they were more socially satisfied with their college experiences than their peers at both institution types. Specifically, they reported being satisfied with the HBCU campus environment, off-campus environment, social/extracurricular opportunities, and overall social experiences. In contrast to PWIs, HBCUs are not as susceptible to the detrimental effects of athletic commercialism as found at FBS PWIs in the post-BCS era largely due to the lack of financial capital associated within these programs compared to their Division I PWI peers (Cooper, Cavil, & Cheeks, 2014). Moreover, HBCUs since their inception have cultivated unique social environments that consist of culturally empowering artifacts, student organizations, and social events, which have been found to enhance Black student athletes' sense of belonging (Cooper, 2013). Instead of experiencing feelings of marginalization and isolation like Black student athletes at PWIs, Black student athletes at HBCUs are more likely to feel integrated into the campus culture by virtue of HBCUs' unique educational missions, institutional practices, and demographic and psychographic characteristics (Charlton, 2011; Cooper, 2013; Cooper & Hawkins, 2014a, 2014b; Hodge, Collins, & Bennett, 2013). Additionally, the non-Black student athletes at the HBCU also reported having stronger academic relationships than their non-Black student athlete peers at the PWI. Gallien and Peterson (2005) described how nurturing student-centered learning environments is not only a core aspect of HBCUs' mission statements, but also reflected in faculty interactions with students from diverse backgrounds including non-Black students. These findings underscore the important role HBCUs serve as educational institutions that provide quality academic experiences for student athletes across racial groups.

Research question two focused on identifying any differences in terms of frequency and type of involvement (academic, athletic, and social) among student athletes based on racial identification and college institution type. Findings revealed student athletes across racial groups and institutional type spent more time on academics than athletics and social activities. In concert with the NCAA's mantra that student athletes are "student first," these findings underscore the notion that many Division I student athletes prioritize their academic roles in college despite facing significant time constraints (Potuto & O'Hanlon, 2006). These findings are encouraging given the mounting scrutiny of academic subordination and athletic commercialization at NCAA Division I institutions (Benedict & Keteyian, 2013; Southall & Nagel, 2010; Thelin, 1996). However, upon further examination there were differences in frequency and type of involvement across racial identifications and institutional types. For example, Black student athletes at the HBCU reported spending two hours less per week on athletics compared to their student athlete peers at the PWI. Given the fact that HBCUs are non-FBS members, the widespread conference realignment and increased commercialization associated with FBS schools (including the PWI in the current study) does not impact LRIs like HBCUs to the same extent. The two hours less per week spent on athletics reported by the Black student athletes at the HBCU constitutes a significant amount of time if measured over a semester and an academic year. This is an important and unique finding that expands our understanding of the differences between the educational and athletic cultures at Division I HBCUs and PWIs, which are not only influenced by financial resources and athletic commercialization, but also institutional missions and sociocultural foundations (Charlton, 2011; Cooper, Cavil, & Cheeks, 2014; Southall & Nagel, 2010).

This finding may also explain why Black student athletes at the HBCU reported higher levels of social satisfaction because they have more time to be engaged in extracurricular activities aside from athletics. Cooper (2013) highlighted how HBCUs specialize in developing

their student athletes holistically and thus these institutions intentionally create conditions and campus climates that facilitate Black student athletes' involvement in educationally purposeful activities. The fact that the findings from the current study were identified at a Division I HBCU and corroborate with Cooper's (2013) study at a Division II HBCU suggests the de-emphasis on athletic commercialization is unique to HBCUs (non-BCS schools) and not a single institution phenomenon. However, the unique finding that non-Black student athletes at the HBCU reported spending considerably less time on social involvement than their peers across institutional types suggests that they may experience similar levels of cultural dissonance as Black student athletes at PWIs have been found to experience by virtue of being members of a racial minority group on campus (Brooks & Althouse, 2000, 2013). Additional research is needed among this subgroup to ascertain deeper insight into their college experiences as racial minorities at HBCUs.

Research question three focused on identifying any differences between the educational goal commitments among student athletes based on racial identification and college institution type. Findings indicated student athletes across racial groups and institution type possessed similar educational goals. These findings support Sellers' (1992) study where he found both Black and White student athletes at a Division I PWI valued the importance of earning a college degree. These findings also challenge previous studies, which suggest that Black student athletes are less interested in their academic success compared to their White student athlete peers (Simons, Van Rheenen, & Covington, 1999). Interestingly, our findings also revealed that Black student athletes at the PWI possess less salient athletic identities compared to their non-Black peers at the PWI. This finding is intriguing given the abundance of research that has suggested Black student athletes are often primarily recruited for their athletic abilities and once enrolled treated more as athletic commodities rather than promising students (Benson, 2000; Hawkins, 2010; Sellers, 2000; Singer, 2009). A possible explanation for these divergent findings could be the fact that the aforementioned studies focused on the experiences of and conditions facing Black male student athletes in the two highest revenue-generating sports of football and men's basketball whereas the current study included a range of Black student athletes from both profit-generating and non-profit generating sports. Therefore, researchers must continue to explore the experiences of Black student athletes across all sports to engage in a more comprehensive overview of their experiences.

The fourth research question of the current study focused on identifying whether there is an association between student athletes' academic performance and educational goal commitments and their pre-college backgrounds and college experiences (e.g., relationships, engagement, and satisfaction). Consistent with Comeaux and Harrison's (2011) conceptual model of academic success, the authors sought to determine the relationship between student athletes' pre-college demographic characteristics and levels of integration (academic, athletic, and social) at a Division I HBCU and PWI. Academic success in the current study was measured in two ways, self-reported college GPA and educational goal commitments. Findings revealed high school GPA was positively associated with student athletes' academic performance in college across racial groups and institution type. High school GPA has consistently been identified as a strong predictor for college GPA among student athletes, which suggests academic preparation prior to college continues to be an important factor related to student athletes' academic success (college GPA), persistence in college (degree completion), and post-college educational goals (graduate school) irrespective of race and gender (American Institutes for Research, 1989; Harrison, Comeaux, & Plecha, 2006; Sellers, 1992). Overall

satisfaction was found to be positively associated with college GPA, which provides evidence to support Comeaux and Harrison's (2011) model of college student athlete academic success.

Interestingly, overall relationships were negatively associated with college GPA. The authors interpret this finding from multiple perspectives. Academically, it could be surmised that student athletes with lower academic performance levels would be more likely to have more close contact with their professors, academic administrators, and academic advisors and thus the more frequent interactions could lead to stronger relationships. On the other hand, stronger athletic relationships with coaches, athletic administrators, and athletic academic support staff could reflect stronger athletic identities and contribute to less emphasis on academic performance (Adler & Adler, 1991). Along the same lines, stronger social relationships could lead to more attention being taken away from academics, which if not kept within a proper balance can negatively impact academic performance. Thus, the strength and quality of student athlete relationships must not be examined in isolation rather it should be examined within the context of their holistic engagement, involvement, satisfaction, and motivations in college.

Related to race, there were mixed findings regarding the relationship between student athletes' college experiences (academic, athletic, and social) and their academic success (college GPA and educational goal commitments). Similar to the overall findings across racial groups, satisfaction (academic, athletic, and social) was positively associated with college GPA for all subgroups except non-Black student athletes at HBCUs. This finding supports previous research, which discovered student athletes thrive in educational settings where they feel a sense of belonging and satisfied with their overall college experiences (Potuto & O'Hanlon, 2006). Since the result was moderately positive (albeit not statistically significant) for non-Black student athletes at the HBCU, the authors suggest a larger sample size of this subgroup could have provided more statistical support for the positive relationship between overall satisfaction and college GPA. Moreover, overall relationships were negatively associated with college GPA for both racial groups of student athletes at the PWI. As previously mentioned, deeper exploration into the relationship between the nature, quality, and extent of relationships on specific academic outcome variables is needed to better understand this finding (quantitatively, qualitatively, and mixed methods – see future research section).

In contrast, another unique finding from the current study revealed that overall relationships (academic, athletic, and social) were positively associated with college GPA for non-Black student athletes at the HBCU. Examining this finding with additional data from this study (this subgroup also reported stronger academic relationships and lower levels of social involvement), the authors suggest that non-Black student athletes at HBCUs may be more likely to focus on their academics and meet with their professors since they do not experience high levels of social involvement within these settings. In other words, these stronger academic relationships may serve as a buffer for the social isolation they experience in the larger campus community. In addition, the fact that the HBCU in the current study is a non-FBS school may suggest the institutional environment at the school prioritizes academics over athletics and thus non-Black male student athletes maybe more likely to view their role at the institution in "student first athlete second" terms and engage in more positive relationships with their professors, academic administrators, and academic advisors (Sack & Staurowsky, 1998). However, additional research is needed on this subgroup in order to provide more insight into their experiences.

Regarding Black student athletes at the HBCU, this was the only subgroup where overall engagement was identified as positively associated with college GPA. Coupled with the finding

that this subgroup spent less time on athletics than their student athlete peers at both institution types, this finding corroborates previous research that found Black students at HBCUs possess strong holistic identities, more likely to be engaged socially, and experience positive academic outcomes than their peers at PWIs (Steinfeldt, Reed, & Steinfeldt, 2010). Additional findings indicated Black student athletes at the HBCU also earned higher college GPAs and expressed stronger commitment to attaining educational goals. Collectively, these findings buttress the notion that HBCUs continue to serve as valuable educational institutions where Black student athletes can experience positive educational outcomes and enhanced academic self-efficacy (Charlton, 2011; Cooper, 2013; Cooper & Hawkins, 2014a, 2014b; Hodge, Collins, & Bennett, 2013).

Related to educational goals, there was a positive association with engagement and educational goals for the racial majority subgroups at each institution type (non-Black student athletes at the PWI and Black student athletes at the HBCU). The literature on college student development purports student engagement is among the strongest predictors of persistence and post-college career outcomes (Pascarella & Terenzini, 2005). However, these findings also suggest the racial composition of the institution may mitigate the relationship between engagement levels and educational goals. In other words, students particularly student athletes who are racial minorities at institutions may feel marginalized and socially isolated and thus less likely to be engaged in various activities (e.g., attending non-athletic social events on campus, feel a part of the campus community, etc.) and/or feel confident in their educational pursuits (Allen, 1992; Singer, 2009). Additional findings indicated that satisfaction was positively associated with educational goals for racial minority subgroups at each institutional type (Black student athletes at the PWI and non-Black student athletes at the HBCU). Despite being racial minorities at their institutions, this finding suggest student athletes who are racial minorities may adopt effective coping skills to overcome the unique challenges they face at their respective institutions. However, more in-depth exploration of this phenomenon is needed particularly on non-Black student athletes at HBCUs.

Implications for Policy and Practice, Limitations, and Future Research

Several implications for policy and practice can be drawn from the current study. First, findings revealed student athletes who were racial minorities at their respective institutions experienced less positive overall college experiences compared to their racial majority peers at the same institution. Thus, postsecondary institutions should work with student affairs professionals and multicultural offices to implement programs and services such as advocacy groups to taken into account and ultimately address the unique challenges facing these student athlete subgroups. Specifically, these programs should focus on creating conditions and pathways to enhance student athletes' sense of belonging and engagement regardless of the institution type. Along the same lines, findings revealed Black student athletes at the HBCU spent two hours less per week on athletic related tasks, reported being more satisfied with their social experiences (e.g., campus climate, interactions with peers who are non-athletes, and off-campus environment), earned higher college GPAs, and reported stronger commitment to educational goals than their peers at both institution types (Black and non-Black at the PWI and non-Black at the HBCU). In addition, overall engagement was found to be associated with higher college GPAs for Black student athletes at HBCUs as well as associated with higher commitment to educational goals among the aforementioned group and non-Black student

athletes at the PWI. Thus, despite being in an increasing commercialized intercollegiate athletic culture, if Division I institutions are seeking to enhance the overall college experiences of their student athletes, then these institutions must create and enforce policies that facilitate and prioritize student athlete engagement in aspects of campus aside from athletics.

One policy recommendation would be to require student athletes to spend one third of the monthly time they spend on athletics on involvement in educational activities. For example, if student athletes spend 80 hours a month on athletics (based on the NCAA 20 hour per week maximum limit), then they should be required to spend at least 24 hours per month on involvement in activities such as study groups, campus organizations, attending on campus cultural events, visiting cultural centers, and participating in community outreach with an emphasis on establishing connections with individuals (e.g., peers, faculty, administrators, staff, community members, etc.) outside of the athletic department. This increased engagement could manifest enhanced sense of belonging, satisfaction, and academic performance.

The current study also found that high school GPA was significantly associated with student athletes' academic performance in college. Based on this data, institutions should use high school GPA as a marker for targeting student athletes' transition and facilitation efforts. One transition effort would involve academic redshirting (Cooper, 2015), which is similar to the previous first year athletic ineligibility rule (Benford, 2007). The 2.3 policy has already been adopted by the NCAA, which is a step in a more educationally-centered direction; however, the authors' recommendation would involve identifying student athletes who have high school GPAs and high school academic course loads that would suggest they may have difficulty excelling academically and therefore they would participate in limited athletic related activities during their first year and have intense academic support throughout their first year.

The intense academic support should involve partnerships with university wide academic support services, schools/colleges of education, and the academic support services for student athletes. Athletic time restrictions could require student athletes to participate in team practices or team workout sessions (not both), attend (not compete in) home games, and eat meals on campus with the team. However, away games, film sessions, travel time, and workouts or team practices would be prohibited during the first year. Aside from high school GPA, overall satisfaction was also associated with all student athletes' college GPA as well as associated with higher educational goal commitments among Black student athletes at the PWI and non-Black student athletes at the HBCU. As a result, one recommendation is for institutions to create and administer student athlete college experiences questionnaires (i.e., the SACEQ used in the current study) on a semester basis to assess the quality of their student athletes' relationships, engagement, and satisfaction. This information should be tracked by the athletic department and resolutions for improving their experiences should be endorsed and implemented across the institution with involvement from faculty, university administrators, academic support staff, and athletic department staff.

As with all studies, the current study possessed limitations. We only examined two Division I institutions (one HBCU and one PWI) based on the criteria for the current study and thus our findings may not be generalizable to all Division I institutions and its student athletes. Another limitation of the current study included the use of self-reported college GPA and educational goals as a measure of academic success. We acknowledge there are a multitude of concepts and measures to assess academic success, but used self-reported GPA because it is a commonly used outcome variable and relatively easy to ask students to report accurately (Astin, 1993; Comeaux & Harrison, 2007; Harrison, Comeaux, & Plecha, 2006) and reported

educational goals as a non-cognitive measure of academic success (Sedlacek, 1987). Another limitation with our analysis of the two institutional types is the possibility that there may be fundamental differences in the student athletes that self-select to attend a HBCU versus a PWI. Our results should be interpreted with the understanding that choice of school type is likely mediated by financial considerations, distance, familiarity and connection with institutions, among a host of other factors, which could also impact the differences we highlight. The cross sectional nature of this study may also be considered a limitation.

Future research should conduct similar analyses as those performed in the current study with larger samples across various institution types, divisional classification levels, association classification levels, and conference affiliations to identify best practices/conditions for student athlete development. Future research should also employ qualitative and mixed methods approaches to ascertain a deeper understanding of the socialization experiences of student athletes' relationships, engagement, and satisfaction. Specifically, qualitative studies examining and contrasting the experiences of student athlete subgroups such as racial minorities at different institutions should be conducted to better understand the unique challenges they face and identify key factors that facilitate their success outcomes. Lastly, longitudinal studies that examine student athletes' experiences over time at different institution types should be employed to grasp a more comprehensive understanding of student athletes' experiences from initial enrollment through graduation.

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