Student-Athletes at an Historically Black University (HBU): Examining the Relationship Between Student-Engagement on Campus and Career Situation Awareness

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Student-Athletes at a Historically Black University (HBU): Examining the Relationship Between Student-Engagement on Campus and Career Situation Awareness

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Abstract

The purpose of this exploratory study was to examine the relationship between student-athletes’ engagement experiences on campus and their career situation awareness at a historically Black university (HBU) with NCAA Division I affiliation in the Southeastern United States. Data was obtained from a sample (n = 118) of female (n = 45) and male (n = 73) student-athletes using measures from the revised versions of the Student-Athlete Experiences Inventory (SAEI) and the Student-Athlete Career Situation Inventory (SACSI). One-way ANOVA, Pearson product-moment correlation tests, and t-tests were employed to analyze gender and race effects. Following data analysis, three key findings were identified. First, HBCUs are likely to provide socially enriching environments for minority student-athletes of both genders that promote career confidence, particularly for Black female student-athletes. Second, in an HBCU context, White student-athletes may not be as academically involved in university life when compared to their minority counterparts. Third, the use of the library for academic purposes and engagement in socially enriching experiences may have diminishing effects on female student-athletes’ sport identities. Implications and future research recommendations are discussed. To better validate and improve the generalizability, future research should conduct similar studies that employ data from multiple HBCUs.

Keywords: career situation awareness, HBCUs, NCAA, student-athletes, student engagement

Since the establishment of the first historically Black university (HBU) in 1937, 105 such institutions—representing 3 percent of U.S. colleges and universities—now operate in the United States (Gasman, 2013; Lee & Keys, 2013). While collectively referenced as historically Black colleges and universities (HBCUs)—a classification that acknowledges a principal mission of educating Black Americans—these institutions are diverse in size and scope, and are categorized within six distinct Carnegie Classifications. Many of the students (77%) who attend HBCUs are enrolled at public institutions. Furthermore, a majority of HBCUs are four-year institutions (87%), which serve 84% of HBCU students. Aligning with the overarching mission of these institutions, the current racial composition of HBCU students is (from largest to smallest): Black (83%), White (13%), Hispanic (3%), and Asian (1%) (Lee & Keys, 2013).

The educational outcomes of HBCUs have been essential to the advancement of Black students: Despite enrolling only 9 percent of African American undergraduate students, HBCUs produce 17 percent of all bachelor’s degrees, 25 percent of bachelor’s degrees in education, and 22 percent of bachelor’s degrees in STEM fields to African American students. This means that HBCUs overproduce bachelor’s degrees to African Americans nationally despite only operating in 19 states and the District of Columbia (Lee & Keys, 2013, p. 16).

Furthermore, the undergraduate, educational outcomes attributable to HBCUs translate into the attainment of master’s, doctoral, and professional degrees for Black students. According to Lee & Keys (2013), Black students who attend HBCUs as undergraduates are more likely to progress into graduate or professional programs than Black students who choose to attend other institutional types for their undergraduate education.

There has been an increasing amount of
research that has examined the plight of Black student-athletes. Much of this research, however, has examined Black student-athletes at historically White institutions (HWIs) (Hodge, 2015), centering around athlete experiences, or around grade point averages (GPAs) and graduation rates, among other academic measures and outcomes (Bimper, Harrison, & Clark, 2012; Gaston-Gayles, 2004; Gaston-Gayles & Hu, 2009; Carter-Francique, Hart, & Steward, 2013). Research that has focused on student-athletes within the context of HBCUs has been sparse (Hodge, 2015). Considering the importance of HBCUs toward Black student outcomes nationally, greater examination of Black student-athlete outcomes and experiences is warranted.

Fortunately, there has been a growing branch of research that examines student-athletes at HBCUs. Much of this recent work can be attributed to Cooper (e.g., Cooper, 2017; Cooper & Hall, 2016; Cooper & Hawkins, 2012; 2014; Cooper, Gawayrsiak, & Hawkins, 2013; Cooper, Porter, & Davis, 2017). There has been little current research, however, conducted on student-athletes at HBCUs that employs quantitative methods exceeding descriptive statistics (i.e., Cooper & Dougherty, 2015; Cooper & Hall, 2016; Hendricks & Hendricks, 2005; Sadberry & Mobley, 2013; Steinfeldt, Reed, & Steinfeldt, 2010; Theune, 2016). Another study identifies predictors of health-promoting behaviors for student-athletes at three HBCUs (Hendricks & Hendricks, 2005). None of the analyses from these studies examine female student-athlete experiences separate from the larger sample. Yet, research on student-athletes finds that Black female student-athletes, in some contexts (e.g., basketball) are more likely to perform better academically than their Black male peers (Reynolds, Fisher, & Cavil, 2012), suggesting the need to consider gender and race effects whenever possible.

This exploratory study employs a quantitative method to both support and further the foundation of knowledge within this research branch by examining how male and female student-athlete engagement at a historically Black university (HBU) campus is associated with career situation awareness respective to race.

Relevant Background

**Research Overview of Student-Athlete Experiences at HWIs and HBCUs**

When studying intercollegiate student-athlete experiences at HWIs, researchers have found differences in student-athlete experiences and opportunities related to race and gender (Bruening, 2004; Bruening, Armstrong, & Pastore, 2005; Parsons, 2013; Reynolds, 2012; Steinfeldt et al., 2010; Theune, 2016). Some scholars have suggested these differences are attributable, in part, to racial disparities that have existed throughout American history (Hodge, Bennett, & Collins, 2013). Many studies have found that student-athletes encounter negative stereotypes directed toward their academic preparedness, academic course difficulty, and intelligence (Sailes, 1993), particularly Black male student-athletes who participate in revenue-generating sports (i.e., basketball and football) (Hyatt, 2003; Simons, Bosworth, Fujita, & Jensen, 2007). These stereotypes are held by student-athletes’ student peers and many college and university faculty members, the latter of whom have been found to possess negative perceptions about student-athletes’ academic competence, special accommodations, and recognitions (Engstrom, Sedlacek, & McEwen, 1995; Simons et al., 2007). In one study (Melendez, 2008), Black football players at an HWI in the Northeastern United States reported that they felt isolated, rejected, and unfairly judged by both their coaches and the campus community at large. Both Black female and male student-athletes have expressed concerns about encountering negative stereotyping and racism, being deprived of leadership opportunities—whether those opportunities were sport-related—and receiving differing treatment than that given to their White peers (Bruening 2004; Singer, 2005).

Conversely, research has indicated that Black student-athletes have been able to experience positive educational environments and holistic personal development at HBCUs (Cooper & Hawkins, 2012; Fleming, 1984), where these institutions have made a concerted effort to foster a “familial and culturally empowering environment for Black male [and female] student athletes” (Cooper & Hall, 2016, pp. 59-60). HBCUs, in accordance to their mission state-
ments—which are designed to culturally empower and meet the sociocultural and educational needs of Black students (Allen, Jewel, Griffin, & Wolf, 2007; Brown & Davis, 2001)—provide curriculum, artifacts, and institutional practices that are culturally relevant for their Black student-athletes (Allen et al., 2007). Moreover, where racism at HWIs has been found to limit leadership opportunities for Black student-athletes, coaches, and administrators (Singer, 2002), the majority presence of Black students, staff, faculty, and administrators at HBCUs offer Black student-athletes a greater sense of belonging and foster holistic college community experiences (Palmer & Young, 2010).

Academic Preparation, Academic Eligibility, and Career Preparedness

The demands placed upon student-athletes while in college differ from those of other students (Ridpath, 2010; Rubin & Moses, 2017). In addition to attending their classes, they must participate in campus events, travel for games, practice, train, receive treatment for sport-related physical recovery, and memorize team plays and game plans (Huml, Hancock, & Bergman, 2014; Ridpath, 2010). Some student-athletes have been found to devote more than 40 hours a week to their sport-related activities when in season (NCAA, 2016). With these time demands, student-athletes must contend with less available time for studying (Paule & Gilson, 2011; Roth-schild-Checrone, Gravelle, Dawson, & Karlis, 2012) and less availability for attending college and university programming (Kamusoko & Pemberton, 2013), negatively impacting their autonomy (Kimball, 2007). They also can become isolated from other students (Helms & McCormick, 2009).

While the NCAA mission statement claims to “integrate intercollegiate athletics into higher education so that the educational experience of the student-athlete is paramount” (Citadel newsroom, 2007, para 2), its critics argue that there are inherent and unreconcilable contradictions surrounding the pursuits of athletics success, athletics profitability, and institutional academic integrity (Covell & Barr, 2001). For example, the NCAA (2019c) boasts that “eight out of 10 student-athletes will earn a bachel- lor’s degree” (para 1), measuring student-athletes’ outcomes using its Graduate Success Rate (GSR) and Academic Progress Rating (APR) (NCAA, 2019a, 2019b). Critics, however, assert that the rewards and penalties—and subsequent pressures—associated with maintaining these measures will encourage more academic clustering, with student-athletes being encouraged by academic support staff to enter into certain majors and classes to maintain eligibility, rather than pursue true career interests (Fountain & Finley, 2009, 2011; Paule-Koba, 2019; Vedder, Villwock, & Denhart, 2009). The Drake Group—a national organization whose mission is to defend academic integrity in higher education from corruptive elements of commercialized college sports—recommends that the NCAA discontinue use of GSR and APR because:

They are fundamentally flawed metrics that (1) are not pegged to a standard that permits comparison with non-athlete students, (2) do not recognize institutional differences in mission, classroom competitiveness, and student quality and the effect of these factors on underprepared college athletes and (3) invite widespread academic fraud when mismatched recruits are not provided appropriate remediation through academic support services. (Ridpath, 2015, para 7)

HBCU’s have a social justice mission of serving students who are the least likely to have access to higher education (Jones & Bell, 2016), with many of the institutions accepting a higher proportion of students with minimal ACT or SAT scores (Evans, Evans, & Evans, 2002). Furthermore, many HBCUs face greater challenges than HWIs in securing much needed external funding (Evans et al., 2002), operating with less resources. Thus, the academic standards and policies established by the NCAA create a greater burden for HBCUs with Division I affiliations than for most other NCAA Division I member institutions (Dohrn & Reinhardt, 2013).

Being a Student: Student-Athlete Engagement on Campus

Once students arrive on campus, a key factor in their academic success is student engagement (Pascarella & Terenzini, 2005), which can be broadly defined as “the extent to which they [i.e., students]
take part in educationally effective practices” (Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006, p. 31). The concept of student engagement encapsulates both: 1) students’ efforts and time investments into their studies and other educationally purposeful activities, and 2) the approaches taken by institutions to deploy their educational and experiential resources (Kuh et al., 2006; Pascarella & Terenzini, 2005).

When examining student engagement in a student-athlete context, a study by Gaston-Gayles and Hu (2009) found that student engagement had a positive effect on student-athletes’ educational outcomes, albeit the level of its effect differed based on sport played (Gaston-Gayles & Hu, 2009). Moreover, they found that the backgrounds of student-athletes appeared to have minimal influence on how much they engaged in educational activities (Gaston-Gayles & Hu, 2009; Kuh, Hu, & Vesper, 2000; Pascarella & Terenzini, 2005). In discussing their findings, they suggested that “creating opportunities for student-athletes to interact with non-athlete peers in college” would likely promote “powerful educational effects” (Gaston-Gayles & Hu, 2009, p. 329).

A more recent study (Woods, McNiff, & Coleman, 2018) compared the levels of Black male student-athletes’ student engagement at NCAA Divisional and NAIA institutions, focusing on the engagement areas of academic challenge, active and collaborative learning, and student-faculty interaction. Results from the study suggested that NCAA Division III institutions were the most effective at providing support systems for engaging in educational activities and assisting with psychological coping mechanisms for completing college more efficiently (Woods et al., 2018).

As noted earlier, student-athletes have been found to exhibit low levels of career situation awareness, or career maturity (Kennedy & Dimmick, 1987; Murphy, Pettipas, & Brewer, 1996), which is defined as “the maturity of attitudes and competencies that are critical in realistic career decision-making” (Meeker, Stankovich, & Kays, 2000, p. 126). Several studies have identified a link between athletic identity foreclosure by student-athletes and poor career situation awareness (Adler & Adler, 1991; Beamon, 2012; Murphy et al., 1996). For instance, a seminal study by Adler and Adler (1991) examined the athletic and academic roles (and subsequent identity formation and salience) of NCAA Division I men’s basketball players. While many of the student-athletes in the study initially embraced both the “student” and “athlete” roles of being a “student-athlete,” this dual-role often changed over the duration of their college tenure due to greater reinforcement and subsequent role salience of the student athletes’ athletic roles. With consideration to the dualism of racial and athletics identities functioning within student-athletes, another study (Steinfeldt et al., 2010) investigated the relationships and influences of these identities on college adjustment. Black football players at HWIs were found to possess stronger athletic identities than their counterparts at HBCUs, with senior football players from both school types reporting a perceived low regard for Blacks within society (i.e., public regard). This perception of low public regard was found to predict greater college adjustment.

Consequently, the student athletes’ athletic roles have been found to be influential in shaping both their athletic and social identities (Adler & Adler, 1991; Finch, 2009). This may be particularly true for Black male student-athletes, who are more likely to foreclose on their athletic identities than their White male student-athlete peers (Harrison, Sailes, Rotich, & Bimper, 2011). These findings regarding athletic identity and identity foreclosure are concerning, as student-athletes’ athletic identities have not been found to influence career self-efficacy; whereas their student identities have been found to possess a moderating effect (Finch, 2009), hence the importance of student engagement.

Student engagement can foster a healthy student identity (Kuh, Kinzie, Schuh, & Whitt, 2005), particularly for those students who are the least prepared for college (Carini, Kuh, & Klein, 2006; Pascarella & Terenzini, 2005). A healthy student identity should prevent athletic identity foreclosure and potentially encourage greater career situation awareness. Consequently, with the previously noted differences in student-athlete experiences (i.e., campus engagement) and the pre-college preparation levels of students at HBCUs versus HWIs, this study examines college experiences that are believed to reflect student-athletes’ perceptions of their on-campus engage-
ment as factors of their career situation awareness. The following research question guides this study:

RQ: What relationships exist between student-athlete engagement experiences (SEE) on campus and career situation awareness (CSA) for male and female student-athletes at an HBU?

Related to this research question, and developed with consideration to relevant, extant literature, there are two hypotheses:

H1: There is a relationship between SEE on campus and their CSA.

H2: There are race differences between SEE on campus and their CSA by gender.

Method

Participants

Participants consisted of student-athletes enrolled at a teaching-focused, medium-sized, four-year HBU with a population exceeding 7,000 students. It is designated as a “high research” institution by the Carnegie Classification of Institutions of Higher Education. An NCAA member institution, its athletic programs participate in the Ohio Valley Conference, covering the following sports: Men’s and Women’s basketball, football (Division I-AA), golf, tennis, track and field, softball, and volleyball. As a four-year, public institution with a large athletics program, the institution—considering that most HBCU students attend four-year (84 percent) and/or public (77) schools (Lee & Keys, 2013)—represented a desirable choice for conducting this exploratory study.

Permission to conduct this study was obtained from both the Institutional Review Board (IRB) and the university’s athletic director. Voluntary participation was sought with assistance from coaches. The coaches invited one of the researchers to administer the survey during regular team meetings. Following consent, participants were explained the purpose of the study, and a paper and pencil survey—consisting of the SACSI, SAEI, and the additional demographic variables—was administered to them. Consistent with recommended instrument use (Cox, Sadberry, McGuire, & McBride, 2009), male and female student-athletes completed versions of the survey designed for their respective genders. The researcher only was able to access students who were present in those meetings, which rarely was the entire team. This resulted in a convenience sample (n = 118) of female (n = 45) and male (n = 73) student-athletes that represented a diverse selection of academic pursuits and intercollegiate sports (i.e., basketball, football, golf, softball, tennis, and track and field). Demographic characteristics of the sample are provided in Table 1.

Instrument

The surveys used in this study included measures from both the Student-Athlete Career Situation Inventory (SACSI) and Student-Athlete Experiences Inventory (SAEI). These instruments were chosen given that they were empirically designed and tested to examine student-athletes’ career situation awareness and their engagement experiences while on campus, respectively. Through empirical testing, differing factor structures were identified for female and male student-athletes’ experiences and career situation awareness (Cox et al., 2009). With the instrument having previously been used to examine student-athletes at an HWI, its use also allowed for comparison between two contexts of interest (i.e., HBU and HWI). Additional questions were included to assess demographic variables suspected to influence career development/situation awareness. These demographic variables included age, GPA, race, and sport played.

SACSI. The original version of the SACSI (Sandstedt et al., 2004) consisted of 30 items that were designed to measure student-athlete career situation awareness, which was defined as “the extent one’s career development preparation is characterized by the sophistication of one’s career attitudes, beliefs, and interests” (p. 82). The SACSI implements a Likert-type scale of agreement that ranges from 1 (“strongly disagree”) to 5 (“strongly agree”). It was later revised (Cox et al., 2009), with different scale and factor structures being identified for females (23 items, 4 factors) and males (25 items, 5 factors). The two gender-specific versions of the revised scale were used in this study.
Table 1

*Demographic Characteristics of Respondents*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>50</td>
<td>68.5%</td>
</tr>
<tr>
<td>Caucasian</td>
<td>12</td>
<td>16.4%</td>
</tr>
<tr>
<td>Other Races&lt;sup&gt;b&lt;/sup&gt;</td>
<td>9</td>
<td>12.4%</td>
</tr>
<tr>
<td><strong>Classification in College</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>24</td>
<td>32.9%</td>
</tr>
<tr>
<td>Sophomore</td>
<td>24</td>
<td>32.9%</td>
</tr>
<tr>
<td>Junior</td>
<td>14</td>
<td>19.2%</td>
</tr>
<tr>
<td>Senior</td>
<td>9</td>
<td>12.3%</td>
</tr>
<tr>
<td><strong>What Sports Do You Play</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Football</td>
<td>34</td>
<td>46.6%</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>50.7%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Variable</strong></td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td>Age (Male)</td>
<td>66</td>
<td>19.65</td>
</tr>
<tr>
<td>Age (Female)</td>
<td>43</td>
<td>19.79</td>
</tr>
<tr>
<td>GPA (Male)</td>
<td>49</td>
<td>2.997</td>
</tr>
<tr>
<td>GPA (Female)</td>
<td>38</td>
<td>3.227</td>
</tr>
</tbody>
</table>

<sup>a</sup>Percentage not equal to 100% due to missing data points

<sup>b</sup>Other Races includes 1 Asian, 1 Hispanic, 4 Native Americans, and 3 “other”

<sup>c</sup>Other Race was selected as “other” in the survey
The revised 23-item SACSI for female student athletes has four latent factors, namely Sports Identity (8 items, $\alpha = .756$; “I am an athlete first, student second”), Career Confidence (5 items, $\alpha = .840$; “I am confident about my ability to find a satisfactory career”), Career Barriers (5 items, $\alpha = .727$; “I do not have enough time to explore potential career opportunities”), and Sports Facilitates (5 items, $\alpha = .807$; “Many job-related skills can be learned from experiences in sport”). A high degree of career situation awareness is indicated by high scores in Career Confidence and Sports Facilitates, paired with low scores in Sports Identity and Career Barriers.

The revised 25-item SACSI for male student-athletes has five latent factors, namely Career Confidence (6 items, $\alpha = .811$; “I am confident about my ability to find a satisfactory career”), Low Career Interest (5 items, $\alpha = .794$; “I feel pressure from others to pursue a particular career”), Academics/Career Importance (4 items, $\alpha = .705$; “Excelling in Academics is as important to me as excelling in my sport”), Sports Facilitates (5 items, $\alpha = .860$; “Many job-related skills can be learned from experiences in sport”), and Career Barriers (5 items, $\alpha = .677$; “I do not have enough time to explore potential career opportunities”). A high degree of career situation awareness is indicated by high scores in Career Confidence, Academic/Career Importance, and Sports Facilitates, paired with low scores in Low Career Interest and Career Barriers.

SAEI. The original version of the SAEI (Cox et al., 2004) consisted of 39 items and three factors (i.e., Involvement in University Life, Social Enrichment Experiences, and Academic Use of the Library) for measuring the college experiences of student-athletes. The SAEI implements a Likert-type scale of frequency that ranges from 1 (“never”) to 5 (“very often”). Like the SACSI, the SAEI later was revised (Cox et al., 2009) into two versions that reflected scale differences in the factor measurements for females (24 items) and males (25 items). The two gender-specific versions of the revised scale were used in this study.

The revised 24-item SAEI for female student-athletes measures Involvement in University Life (11 items, $\alpha = .870$; “Initiated the opportunity to make a formal oral class presentation”), Social Enrichment Experiences (7 items, $\alpha = .705$; “Discussed policies and issues related to campus activities and student government with another student”), and Academic Use of the Library (6 items, $\alpha = .768$; “Used a computer to conduct a literature search or to locate books/journals in the library”). The revised 25-item SAEI for male student-athletes measured Involvement in University Life (13 items, $\alpha = .903$; “Discussed policies and issues related to campus activities and student government with another student’), Social Enrichment Experiences (8 items, $\alpha = .818$; “Had a serious discussion with a student on topics such as religion or politics”), and Academic Use of the Library (4 items, $\alpha = .720$; “Used a computer to conduct a literature search or to locate books/journals in the library”).

Data Analysis

Separate analyses were conducted on male and female student-athlete data. Frequencies, percentages, means, and standard deviations were used to describe the male and female respondents based on demographic characteristics (i.e., gender and age), CSA, and SEE. Independent t-tests and ANOVA were used to compare the student-athletes’ SACSI and SAEI scores by race and sports played. Pearson Product Moment Correlation Coefficient was used to determine the relationships between age, GPA, SACSI scores, and SAEI scores. To determine how to categorize scale scores for each SACSI factor, points on the scale were divided into tertiles. From this process, individuals were identified as high (i.e., above 3.33 points), moderate (i.e., between 1.67 and 3.32 points), or low (i.e., below 1.33 points) in CSA.

Results

Overall SACSI and SAEI Scores

The means, standard deviations, and correlations among variables in this study are shown in Table 2 for females and Table 3 for males.

Male student-athletes reported high scores in the three positive CSA factors (Career Confidence, M=3.71, SD=0.67; Academics/Career Importance, M=3.36, SD=0.72; Sports Facilitates, M=3.69, SD=0.78), and moderate scores for the two negative CSA factors (Low Career Interest, M=2.77, SD=0.80;
Career Barriers, M=2.97, SD=0.65). Reported SAEI factor scores on male student-athletes’ SEEs fell within the high (Social Enrichment Experiences, M=2.71, SD=0.60) and moderate (Involvement in University Life, M=2.21, SD=0.65; Academic Use of the Library, M=2.35, SD=0.70) categories.

Table 2

Means, Standard Deviations, and Correlations among Study Variables for Male Respondents

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Age (n=67)</td>
<td>19.51 (2.28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 GPA (n=49)</td>
<td>2.997 (0.49)</td>
<td>-0.090</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Career Confidence (n=73)</td>
<td>3.71 (0.67)</td>
<td>0.012</td>
<td>0.349*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Low Career Interest (n=73)</td>
<td>2.77 (0.80)</td>
<td>0.152</td>
<td>0.247</td>
<td>0.003</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5 Academics/Career Important (n=73)</td>
<td>3.36 (0.72)</td>
<td>-0.225</td>
<td>-0.059</td>
<td>0.299*</td>
<td>-0.443**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Sports Facilitates (n=73)</td>
<td>3.69 (0.78)</td>
<td>0.325**</td>
<td>0.190</td>
<td>0.452**</td>
<td>0.238*</td>
<td>-0.100</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7 Barriers (n=73)</td>
<td>2.97 (0.65)</td>
<td>0.229</td>
<td>0.067</td>
<td>0.010</td>
<td>0.426**</td>
<td>-0.076</td>
<td>0.078</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Involvement in University Life (n=73)</td>
<td>2.21 (0.65)</td>
<td>0.118</td>
<td>0.181</td>
<td>0.209</td>
<td>0.312**</td>
<td>-0.029</td>
<td>0.060</td>
<td>0.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Social Enrichment Experiences (n=73)</td>
<td>2.71 (0.60)</td>
<td>-0.063</td>
<td>0.133</td>
<td>0.450**</td>
<td>-0.055</td>
<td>0.363**</td>
<td>0.141</td>
<td>-0.043</td>
<td>0.562**</td>
<td></td>
</tr>
<tr>
<td>10 Academic Use of Library (n=73)</td>
<td>2.35 (0.70)</td>
<td>0.041</td>
<td>0.117</td>
<td>0.277*</td>
<td>0.153</td>
<td>0.190</td>
<td>0.057</td>
<td>0.005</td>
<td>0.785**</td>
<td>0.578**</td>
</tr>
</tbody>
</table>

**r is significant at p < .01; * p < .05

Female student-athletes reported high scores in the two positive CSA factors (Career Confidence, M=3.58, SD=0.80; Sports Facilitates, M=3.71, SD=0.76), and moderate scores for the two negative CSA factors (Sports Identity, M=2.30, SD=0.68; Career Barriers, M=3.26, SD=0.76). Reported SAEI scores on female student-athletes’ SEEs fell within the moderate category (Involvement in University Life, M=1.87, SD=0.62; Social Enrichment Experiences, M=2.32, SD=0.58; Academic Use of the Library, M=2.53, SD=0.70).
Table 3

Means, Standard Deviations, and Correlations among Study Variables for Female Respondents

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Age (n=43)</td>
<td>19.79 (1.51)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 GPA (n=38)</td>
<td>3.23 (0.50)</td>
<td>.004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Sports Identity (n=45)</td>
<td>2.30 (0.68)</td>
<td>-.188</td>
<td>-.380</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Career Confidence (n=45)</td>
<td>3.58 (0.80)</td>
<td>.258</td>
<td>-.025</td>
<td>-.463</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Barriers (n=45)</td>
<td>3.26 (0.76)</td>
<td>.088</td>
<td>.372</td>
<td>-.033</td>
<td>-.422</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Sports Facilitates (n=45)</td>
<td>3.71 (0.76)</td>
<td>.069</td>
<td>.179</td>
<td>-.189</td>
<td>.402</td>
<td>-.217</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Involvement in University Life (n=45)</td>
<td>1.87 (0.62)</td>
<td>.241</td>
<td>-.153</td>
<td>-.126</td>
<td>.238</td>
<td>-.194</td>
<td>.161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 Social Enrichment Experiences (n=45)</td>
<td>2.32 (0.58)</td>
<td>.197</td>
<td>.007</td>
<td>-.338</td>
<td>.355</td>
<td>-.033</td>
<td>.129</td>
<td>.708</td>
<td></td>
</tr>
<tr>
<td>9 Academic Use of Library (n=45)</td>
<td>2.53 (0.70)</td>
<td>.022</td>
<td>.273</td>
<td>-.437</td>
<td>.329</td>
<td>-.095</td>
<td>.325</td>
<td>.480</td>
<td>.407</td>
</tr>
</tbody>
</table>

**.r is significant at p < .01; * p < .05

Differences in SACSI and SAEI Scores Based on Selected Demographic Characteristics

T-tests and ANOVA were undertaken to investigate whether there were differences in SACSI and SAEI scores based on race. Separate analyses were conducted on male and female student-athlete data.

Race. One-Way ANOVA were conducted to investigate whether there were differences in SACSI and SAEI scores for male student-athletes on the basis of race. Three categories were created for this analysis: Black, White, and “Other” races (See Table 5).

There were statistically significant differences in the Low Career Interest (SACSI) score for the male student-athletes based on race (F2,68 = 3.251, p = 0.045). The Levene’s Test of Homogeneity of Variance revealed the presence of equal variance between the different groups. Tukey’s post hoc analysis revealed that student-athletes of “Other” races reported significantly higher scores than Black student-athletes (mean difference=0.728) and White student-athletes (mean difference=0.989).

There were statistically significant differences in the Sports Facilitates (SACSI) score for male student-athletes based on race (F2,68 = 3.251, p = 0.045). The Levene’s Test of Homogeneity of Variance revealed the presence of equal variance between the different groups. Tukey’s post hoc analysis revealed that student-athletes of “Other” races reported significantly higher scores than Black student-athletes (mean difference=0.652).

There were statistically significant differences in the Involvement in University Life (SAEI) score for male student-athletes based on race (Welch, 2,17.05 = 8.300, p = 0.003). The Welch statistic was reported since the Levene’s Test of Homogeneity of Variance revealed a violation of the equal variance between groups assumption. Tukey’s post hoc analysis revealed significant differences in the Involvement in University Life, with both Black student-athletes
(mean difference=0.540) and student-athletes of “Other” races (mean difference=0.932) reporting higher levels of involvement than White student-athletes.

Lastly, there were statistically significant differences in the Academic Use of the Library score (SAEI) for the male students-athletes based on race (F2,68 = 3.787, p = 0.028). The Levene’s Test of Homogeneity of Variance revealed the presence of equal variance between the different groups. Tukey’s post hoc analysis revealed that student-athletes of “Other” races reported significantly higher Academic Use of Library scores than White student-athletes (mean difference=0.785) (see Table 4).

Independent t-tests were conducted on the female student-athlete sample to investigate whether there were differences in the SACSI and SAEI scores on the basis of race. Two categories were created for this analysis: Black and White. One student-athlete who had identified as an “Other” race was removed from analysis due to inadequate sample size.

Table 4

Differences in SACSI and SAEI Scores for male Respondents Based on Race

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Black</th>
<th>White</th>
<th>Other</th>
<th>F- Stat ANOVA</th>
<th>Significant Subgroup Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Confidence</td>
<td>3.72 (0.71)</td>
<td>3.64 (0.48)</td>
<td>3.85 (0.72)</td>
<td>.254</td>
<td></td>
</tr>
<tr>
<td>Low Career Interest</td>
<td>2.69 (0.72)</td>
<td>2.43 (0.71)</td>
<td>3.42 (0.90)</td>
<td>4.907*</td>
<td>ac bc</td>
</tr>
<tr>
<td>Academics/Career Important</td>
<td>3.51 (0.70)</td>
<td>3.10 (0.75)</td>
<td>3.17 (0.45)</td>
<td>2.247</td>
<td></td>
</tr>
<tr>
<td>Sports Facilitates</td>
<td>3.62 (0.82)</td>
<td>3.52 (0.44)</td>
<td>4.27 (0.64)</td>
<td>3.251*</td>
<td>ac</td>
</tr>
<tr>
<td>Barriers</td>
<td>2.95 (0.65)</td>
<td>2.79 (0.50)</td>
<td>3.11 (0.74)</td>
<td>.661</td>
<td></td>
</tr>
<tr>
<td>Involvement in University Life</td>
<td>2.27 (0.60)</td>
<td>1.73 (0.43)</td>
<td>2.66 (0.80)</td>
<td>8.300**</td>
<td>ab bc (Welch)</td>
</tr>
<tr>
<td>Social Enrichment Experiences</td>
<td>2.73 (0.58)</td>
<td>2.47 (0.53)</td>
<td>3.06 (0.55)</td>
<td>2.792</td>
<td></td>
</tr>
<tr>
<td>Academic Use of Library</td>
<td>2.40 (0.68)</td>
<td>1.94 (0.62)</td>
<td>2.72 (0.65)</td>
<td>3.787*</td>
<td>bc</td>
</tr>
</tbody>
</table>

n = 50 12 9

Notes. *r is significant at p < .05; ** p<.01. Standard Deviations in parentheses
For the female sample, there were statistically significant differences in Involvement in University Life and Social Enrichment Experiences. Black female student-athletes reported a statistically significantly higher score in Involvement in University Life (M=1.99, SD=0.61) than their White peers (M=1.31, SD=0.24), t(30.42) = 5.187, p = 0.000. The mean difference was 0.692. Additionally, Black female student-athletes reported a statistically significant higher score in Social Enrichment (M=2.45, SD=0.53) than their White peers (M=1.75, SD=0.40), t(42) = 3.54, p = 0.001. The mean difference was 0.708 (See Table 5).

Table 5

<table>
<thead>
<tr>
<th>SACSI Factors</th>
<th>Black (n=36)</th>
<th>White (n=8)</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sports Identity</td>
<td>2.27 (.62)</td>
<td>2.28 (.89)</td>
<td>-.043</td>
<td>42</td>
</tr>
<tr>
<td>Career Confidence</td>
<td>3.60 (.79)</td>
<td>3.60 (.84)</td>
<td>-.004</td>
<td>42</td>
</tr>
<tr>
<td>Barriers</td>
<td>3.28 (.80)</td>
<td>3.13 (.57)</td>
<td>.527</td>
<td>42</td>
</tr>
<tr>
<td>Sports Facilitates</td>
<td>3.72 (.75)</td>
<td>3.85 (.74)</td>
<td>-.459</td>
<td>42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAEI Factors</th>
<th>Black (n=36)</th>
<th>Other (n=8)</th>
<th>t</th>
<th>df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involvement University Life</td>
<td>2.00 (.62)</td>
<td>1.31 (.24)</td>
<td>.5187**</td>
<td>30.415</td>
</tr>
<tr>
<td>Social Enrich. Experiences</td>
<td>2.66 (.55)</td>
<td>2.77 (.65)</td>
<td>3.540**</td>
<td>42</td>
</tr>
<tr>
<td>Academic Use of Library</td>
<td>2.52 (.71)</td>
<td>2.60 (.71)</td>
<td>-.303</td>
<td>42</td>
</tr>
</tbody>
</table>

Notes. *.r is significant at p < .005; ** p < .001. Standard Deviations in parentheses

Relationships Between Career Situation Awareness and Student Engagement Experiences on Campus (Males)

An investigation of the linear relationship between SACSI and SAEI scores was conducted by way of Pearson product-moment correlation coefficient. In the male student-athlete sample, Age was positively correlated with Sports Facilitates (r = 0.325, p < .01) and GPA with Career Confidence (r = 0.349, p < .05).

In assessing the relationship between CSA and SEE in the male sample, Active Involvement in University Life was positively correlated with Low Career Interest (r = 0.312, p < .01). On the other hand, Social Enrichment was positively related with Career Confidence (r = 0.450, p < .01) and Academic/Career Importance (r = 0.363, p < .01). Lastly, Academic Use of the Library was positively correlated with Career Confidence (r = 0.277, p < .05).

Relationships Between Career Situation Awareness and Student Engagement Experiences on Campus (Females)

An investigation of the linear relationship between SACSI and SAEI scores was conducted by way of Pearson product-moment correlation coefficient. In the female student-athlete sample, GPA was negatively related with Sports Identity (r = -0.380, p < .05) and positively related to Career Barriers (r = 0.372, p < .05).
In assessing the relationship between CSA and SEE in the female sample, Social Enrichment was negatively related to Sports Identity \( (r = -0.338, p < .05) \), as was Academic Use of the Library \( (r = 0.372, p < .05) \). In addition, both Social Enrichment \( (r = 0.450, p < .01) \) and Academic Use of the Library \( (r = 0.329, p < .05) \) possessed a positive relationship with Career Confidence. Social Enrichment also possessed a positive relationship Academic/Career Importance \( (r = 0.363, p < .01) \); whereas, Active Involvement in University Life was positively correlated with Low Career Interest \( (r = 0.312, p < .01) \). Lastly, Academic Use of the Library possessed a positive relationship with Sport Facilitates \( (r = 0.325, p < .05) \).

**Discussion**

The purpose of this exploratory study was to investigate the relationships between student-athletes’ SEE on campus and their CSA at an HBU. Data for SEE and CSA were collected using the revised, gender-specific SAEI and SACSI instruments respectively. One-way ANOVA, Pearson product-moment correlation coefficient tests, and t-tests were used to analyze data. When analyzing the data by genders (i.e., male, female), hypotheses used for this study were designed anticipating the existence of various, gender-specific relationships between SEE and CSA (H1). In addition to examining the relationships among these construct factors, possible gender-specific differences in findings by race (H2) were sought through analyses.

The first hypothesis predicted a statistically significant relationship between factors of SEE and CSA. When examining the relationships between the construct factors for male student-athletes, Active Involvement in University Life was found to have a positive association with Low Career Interest; Social Enrichment was found to have a positive association with Academic/Career Importance and Career Confidence; and Academic Use of the Library was found to have a positive association with Career Confidence. These same relationships were found when examining the female student-athlete sample.

The positive relationship between Active Involvement in University Life and Low Career Interest was found in a previous study that used the SACSI and SAEI instruments (Cox et al., 2009). While there are three items associated with this factor that specifically relate to career issues, the positive relationship found between Active Involvement in University Life and Low Career Interest may be due to the immediate nature of the campus activities captured by it (e.g., “Went to the Student Union or other student gathering place to play games”). A previous study found that leisure activities (e.g., playing games) were negatively associated with student-athletes’ GPAs (Chen, Mason, Middleton, & Salazar, 2013). Such activities may function as a distraction from more long-term matters, such as planning for a future career. In other words, this factor may capture a “college bubble” effect.

The positive association between Social Enrichment with Academic/Career Importance and Career Confidence was not surprising, given that the wording of many items for this factor were oriented around personal growth (e.g., “Sought feedback from a friend or a professor relative to my written work”). These relationships also were found to be statistically significant in prior research for male student-athletes at an HWI (Cox et al., 2009). However, the positive relationship between these factors for female student-athletes contradicts previous findings (Cox et al., 2009), which used a predominantly White student-athlete sample composition, finding that Social Enrichment was a predictor of Career Barriers.

The positive associations that Social Enrichment possesses with both Academic/Career Importance and Career Confidence for both male and female student-athletes suggests that athletic departments that foster socially enriching environments for their student-athletes may encourage them to be more focused on their career pursuits. As stated earlier, HBCUs generally have been found to serve as welcoming and supportive environments for Black and other minority students (Cooper & Hawkins, 2012; Fleming, 1984). This environmental difference—the HBU context—may provide an explanation for why Social Enrichment exhibits positive benefits for female student-athletes’ Academic/Career Importance and Career Confidence, whereas in an HWI context, Social Enrichment functioned as a barrier in their CSA. While earlier studies have found a significant gender disparity in student engagement at HBCUs...
(Allen, 1986; Fleming, 1984), the findings from this study support a more recent finding that HBCUs have become more gender-equitable (Harper, Carini, Bridges, & Hayek, 2004). Moreover, results from this study suggest that HBCUs may provide a more gender-equitable environment than HWIs. This also may explain why Social Enrichment was found to possess a negative relationship with Sport Identity for female student-athletes, being that it was not found in the prior study that used HWI data. Since Social Enrichment involves interacting with people in different spheres (e.g., “Made friends with students whose academic major and interests are different than mine”), it may help female student-athletes at HBCUs from becoming isolated and alienated from the general student body, especially when the majority of the student body consists of a population similar to them in race and cultural background.

Previous research that used the SACSCI and SAEI instruments found statistically negligible relationships between Academic Use of the Library and CSA factors for male student-athletes, and only one meaningful negative association (i.e., Academic Use of the Library and Sport Identity) for female student-athletes (Cox et al., 2009). Similar to previous research, this study found a significant negative relationship between Academic Use of the Library and Sport Identity for female student-athletes. This finding provides support to the notion that academic activity (i.e., studying) in an academic environment (i.e., library) fosters stronger academic identities in female student-athletes, likely discouraging athletic identity foreclosure.

Interestingly, this relationship was not found in the current male student-athlete sample, or the one conducted previously using the SACSCI and SAEI instruments. An explanation could be that male student-athletes’ athletic identity is more resilient and fixed than their female counterparts, and/or that they may experience more athletic identity reinforcement, particularly those playing football or basketball (Adler & Adler, 1991; Steinfeldt et al., 2010).

Lastly, a positive association was identified between Academic Use of the Library and Career Confidence. Surprisingly, this relationship was not found in previous research that used the SACSCI and SAEI instruments (Cox et al., 2009), as engaging in academic endeavors would be presumed an encouraged behavior of those student-athletes focusing on career pursuits.

The second hypothesis predicted that there would be differences in SEE and CSA factors for male and female student-athlete samples by race. This hypothesis was supported for the male student-athlete sample, but only partially supported for the female student-athlete sample, as none of the CSA factors for the female sample possessed statistically significant differences.

When examining CSA factors for males, a statistically significant difference in Low Career Interest was found with student-athletes of “Other” races compared to the two other race categories (i.e., Black and White student-athletes), and in Sport Facilitates between students of “Other” races and Black student-athletes. These findings when considered together may suggest that student-athletes from other racial minorities in this sample were more foreclosed on an athletic identity than their Black or White peers. Based on the findings, it can be interpreted that student-athletes from other racial minorities identified strongly as athletes, and possibly viewed graduating from the HBU as an outcome of fulfilling their eligibility requirements (i.e., being able to play)—not preparing for a future career.

When examining SEE factors, a statistically significant difference was found in both student-athlete samples between minorities (i.e., Black and “Other”) and Whites pertaining to Involvement in University Life. Both White males and females possessed much lower scores for Involvement in University Life than their minority and Black counterparts respectively, with their scores also possessing smaller standard deviations. In an HBU context, these White student-athletes would represent the minority, and may experience—like Black student-athletes at HWIs—feelings of isolation and alienation from the student-body at large. This may be truer for White female student-athletes than White male student-athletes, as there also was a statistically significant difference in Social Enrichment between them and...
their Black counterparts, again, with White female student-athletes scoring lower. Specific to males, student-athletes of “Other” races—while possessing no statistical differences with Black student-athletes relative to Academic Use of the Library—were found to be more likely to use the library for academic pursuits than their White peers. Again, this may be related to a “White as minority” effect, where White student-athletes may be less likely to engage in activities on campus than their traditional minority peers.

Summary of Key Findings, Implications, Future Research Recommendations, and Study Limitations

This study is the first to use the SACSI and SAEI instruments to examine student-athletes in an HBU context. When comparing it to its previous use within an HWI context, and to the extant literature on the topic of student-athlete experiences at large, there are several key takeaways from its results. First, based on results from this study, HBCUs appear to provide socially enriching environments for student-athletes of both genders that promote Career Confidence, with a possible group exception being White female student-athletes (M=1.75, SD=.40). In the prior HWI-focused research using these instruments (Cox et al., 2009), a relationship between Social Enrichment and Career Confidence was found for male student-athletes but not for female student-athletes. Rather, Social Enrichment functioned as a Career Barrier for female student-athletes in the HWI context investigated. In contrast from the consistent findings of marginalization, isolation, and harassment experienced by Black female student-athletes at HWIs (Bruening et al., 2005; Carter-Francique, Dortch, & Carter-Phiri, 2017; Rankin et al., 2011), HBCUs may provide better environmental climates for these student-athletes to pursue their career aspirations. Such findings, with further validation, could be used by athletic programs of HBCUs in the recruitment of their Black female student-athletes. Consequently, HBCUs should focus their efforts on developing programs that encourage and enhance social enrichment on campus to facilitate student athletes’ involvement in career-seeking activities.

Second, White student-athletes of both genders possessed lower mean scores for all SEE factors when compared to their Black and other minority counterparts, with the lone exception, again, being White female student-athletes (i.e., Academic Use of the Library). Of particular note, White student-athletes of both genders were found to have statistically significant differences in their Academic Involvement in University Life when compared to their Black and “Other” minority counterparts. This finding of social isolation is similar to previous research conducted by Cooper and Dougherty (2015), where race functioned as a mitigating factor in the quality of student-athletes’ engagement, relationships, and satisfaction for non-majorities within both a Division I HBCU and HWI context. What differs, however, is that within the HBU context—where Black student-athletes would represent the majority—only White student-athletes appear to experience this negative race effect, with student-athletes from “Other” minority groups possessing scores in these experiential areas that are similar to their Black peers. Consequently, athletic departments at HBCUs may consider the creation of initiatives that help White student-athletes feel more included within the culture of the university.

Future research of student-athletes’ campus engagement experiences should more closely examine the “White as a minority” scenario that exists within an HBU context. Findings from such research may help better delineate racial and cultural elements of social identity from more general psychological processes, offering holistic insights for creating environments that are welcoming and inclusive for less represented groups in both HBU and HWI contexts. A practical implication for the athletic program indirectly examined within this study would be to create programming for its student-athletes that meet these needs. Lee and Keys (2013) suggest that creating holistic programs for a more diverse student population may be necessary for HBCUs to survive in a changing environment where there is greater competition for Black student recruitment.

Third, the relationships found between SEE and CSA factors for male and female student-athletes were the same, with the only exceptions involving Sport Identity. The SEE factors of Academic Use of the Library and Social Enrichment were found
to possess negative associations with a strong Sport Identity for female student-athletes. The construct of Athletic Identity is unique to the female version of the SACSI. Therefore, it is difficult—based on the instruments used in this study—to ascertain from its findings whether the athletic identities of student-athletes are formed, reinforced, or influenced differently based on gender in an HBCU context, or if there may be differing behavioral thresholds that, in general, are necessary to influence the athletic identities of these genders psychologically.

Future research should incorporate longitudinal, mixed methodologies to examine athletic identity effects across both gender (e.g., female, male) and institution type (HBCUs, HWIs). Such research would provide generalizable and comparable findings that could be implemented to discourage athletic identity foreclosure in intercollegiate student-athletes.

Lastly, the Academic Use of the Library promotes increased Career Confidence for student-athletes of both genders in an HBU context. While this finding is to be expected, the importance of campus locations as social anchors (Clopton & Finch, 2011) may not be receiving enough attention in research on student-athlete experience and engagement. To further address concerns of environmental isolation of student-athletes from other student-athletes (Huml et al., 2014), future research should seek to better understand what environments best serve as social anchors for developing student-athletes’ academic identities. Athletic departments could utilize such research in the development of campus engagement strategies and programs for its student-athletes that better implement social anchors, to both encourage and reinforce their “student” and athlete identities.

The results of this study should be treated with caution due to several limitations. One of the key limitations of this exploratory study revolves around its sample. While an attempt was made to survey a majority of the HBU’s athletic program’s student-athletes, the sample size was restricted by the number of student-athletes who attended the meetings in which the data was collected. The relatively small size of the sample limited the types of analysis that could be conducted and our ability to generalize the results to the school’s entire student-athlete population. For instance, we created only two categories for the race variable due to having a very small number of respondents in the various race categories. In future studies, researchers should work with coaches to get higher response rates from all teams and to cover all demographic characteristics of interest.

Another limitation stems from the nature of the data used in this study. The data was cross-sectional and consisted of self-report, perceptual measures from a single source: student athletes. Thus, the findings cannot be used to infer causality—only relationship. The results could be subject to common method bias. Additionally, there may be unique environmental characteristics of the institution that could influence the generalizability of findings. Future research should consider examining multiple HBCUs using these research instruments over a period of years. Similar to the seminal work by Adler and Adler (1991), following a student-athlete cohort through the entirety of their college tenures would further strengthen the robustness of findings in future research. Unlike their work, however, such research should capture student-athletes from all Men and Women’s intercollegiate sports teams. Future researchers should consider employing more objective measures and collecting data from additional sources such as coaches and academic advisors to address common method bias concerns and to provide a more complete picture of student-athlete engagement and career situation awareness. A review by Jones and Bell (2016) highlighted the importance of coaches and professors in promoting student-athletes social and academic engagement, and thus their involvement in future studies could generate useful insights.

In conclusion, this is the second known use of the revised SACSI and SAEI instruments. While these instruments now have been applied into two distinct higher education contexts, continued use of the SACSI and SAEI will help better determine their effectiveness in understanding relationships between student-athletes’ engagement experiences and their levels of career situation awareness.
References


