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Journal of Issues in **Intercollegiate Athletics**

Additional Support or Extravagant Cost? Student-Athletes' Perceptions on Athletic Academic Centers

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The purpose of this study was to investigate student-athlete perceptions of the academic resources and support staff within stand-alone athletic academic centers. An online survey was completed by 196 NCAA Division-I student-athletes at two private institutions in the Northeast and one public institution in the Midwest. Results showed both public and private institution student-athletes preferred receiving advising related to their academics from either an academic or faculty advisor instead of their athletic advisor. Additional results show senior student-athletes questioning the career planning resources available to them, private student-athletes perceiving a lack of resources, and public student-athletes perceiving greater hindrances by their athletic academic center. The findings also suggest student-athletes become less satisfied with the career exploration and planning services offered by their respective athletic academic centers as they progress towards their degree. This study reinforces concerns raised by Astin (1984) Student Involvement Theory, which discusses caution about an environment isolating student-athletes from other college students.

Most student-athletes attend college with much the same academic, emotional, and personal goals as other college students (Ferrante & Etzel, 1991). However, student-athletes at National Collegiate Athletic Association (NCAA) Division I universities possess a strong athletic identity has been shown to negatively impact academic success, social interaction, and career development (Lally & Kerr, 2005; Tyrance, Harris, & Post, 2013). Consequently, the NCAA has contributed significant financial resources to support academic performance, increase persistence to graduation, and enhance the student-athlete experience (e.g., leadership programming; career development services). In fact, the number of full-time NCAA Division I athletic advisors increased nearly 200 percent (from 497 in 1995 to 1,567 in 2013) in the past 20 years (NCAA, 2014).

Athletic academic centers are constantly being refurbished or newly constructed as the “crown jewel” of athletic facilities and to serve as a reminder of the institutions’ priority towards academics (Wolverton, 2008). While these facilities are being erected or modified at a frenetic pace, they are also coinciding with calls to rein in exorbitant spending within college athletics (Hesel & Perko, 2010; Weight, Weight, & Schneider, 2013). The Knights Commission on Intercollegiate Athletics (2014) recently reported spending for student-athletes has increased 43 percent since 2005, compared to only 6 percent for general college students.

While an increase in athletic academic support has corresponded with increased academic persistence and graduation rates (NCAA, 2010), questions arise as to the impact of academic support explicitly for student-athletes. The Knight Commission on Intercollegiate Athletics (2001) believes centers for athletic academic support are “too often designed solely to keep them [student-athletes] eligible, rather than guide them toward a degree” (p. 16). This finding is precipitated by the recently replaced purpose of the National Association of Academic Advisors for Athletics (N4A) to assist “student-athletes in maintaining their eligibility and achieving a viable education leading to graduation” (National Association of Academic Advisors for Athletics, 2010, p.1). This reinforcement of athletic advisors to assist student-athletes on preserving their eligibility has caused trepidation from other scholars (Broughton & Neyer, 2001; Comeaux, 2013; The Coalition on Intercollegiate Athletics, 2005). Questions about the validity of athletic academic centers have also arisen with recent reports of student-athletes being directed by athletic advisors to register for a “no-show” course at the University of North Carolina (“The Scandal Bowl”, 2014) and three former athletic academic support staff members at Florida State University providing answers for tests and personally writing portions of assignments for 61 student-athletes (NCAA, 2009).

Astin’s (1984) Student Involvement Theory provides context for this study due to concerns regarding the lack of autonomy and decision-making available to student-athletes regarding their academic experience. Astin highlights the importance of students becoming more involved in campus activities to maximize their development in college. One activity, varsity athletics, has shown to increase their prevalence of being on campus. On the other hand, this increased time is being spent with other athletes, leading to increased isolation from academic activities (Astin, 1984).

This study was conducted to examine athletic academic centers in relation to academic, athletic, and personal success of student-athletes. The purpose of this study was to investigate student-athlete perceptions of the academic resources and support staff within stand-alone athletic academic centers. There are three research questions. First, what are the perceptions of

athletic advisors, academic advisors, and faculty advisors as it relates to the student-athletes' academic, athletic, and personal issues (RQ1)? Second, what are student-athletes' perceptions to resources available in their respective athletic academic centers (RQ2)? Finally, what factors might impede student-athletes from connecting with other campus resources (RQ3)?

Literature Review

Academic Advising in Higher Education

Since the 1970s academic advising has transitioned from concentrating on scheduling classes for students to now being used as a model for increasing the retention and graduation success for all college students (Kuhn, 2008). More generally, academic advising has been defined as providing advice to students regarding academic, social, or personal issues, and this advice could be to “inform, suggest, counsel, discipline, coach, mentor, or even teach” (Kuhn, p. 3). Advising from faculty provides an invaluable resource to the student due to their expertise within the student's major from a curricular, job prospects, and research perspective (Hemwall, 2008). Student-athletes receive another level of support with an athletic advisor. Athletic advisors provide an expertise of NCAA eligibility regulations and challenges due to the student's athletic obligations (Broughton & Neyer, 2001).

Universities have also made a commitment to place academic advising offices in locations are easily accessible such as living centers or adjacent to a congregation of classrooms (Schein, 1995). Providing these services in a more convenient location, which also fosters an organic relationship with other students and academic services, may increase student participation in other academic programs on campus (Heiss-Arms, Cabrera, & Brower, 2008).

Academic Support Services for Student-Athletes

Eligibility and increased graduation rates of student-athletes has become a greater priority for colleges and universities (NCAA, 2010; 2011a; 2011b). This became apparent in 1991 when the NCAA approved bylaw 16.3.1.1, which required the academic counseling and support services be made available for all student-athletes (NCAA, 2013c). This bylaw provided financial support for the construction or continuation of support services for student-athletes creating the Academic Enhancement Fund in 1991 (NCAA, 2013b). The Academic Enhancement Fund provides financial support for tutoring, hiring additional athletic academic counselors, and new equipment (NCAA). This fund now provides over \$24 million in annual aid, which equals approximately \$70,000 for each Division I institution (NCAA). With NCAA support, and scholarly pressure to provide more support, many athletic departments not only created academic support centers for their student-athletes but constructed costly athletic academic support centers isolated from other services on their college campus (Wolverton, 2008, September 5). Among many examples, the University of Michigan, Louisiana State University, Texas A&M University, and the University of Oregon constructed new athletic academic centers, with costs ranging from \$12 million to \$27 million (Bachman, 2010 January 4; Louisiana State University, n.d.; Steinberg, 2009; Texas A&M University, n.d.).

While there are many factors improving graduation rates of student-athletes, the introduction of athletic academic centers explicitly coincides with their increased graduation and retention (NCAA, 2011a, 2011b). Student-athletes have also voiced their satisfaction and need

for the increased academic support. For example, Ridpath (2010) found certain subgroups (e.g. race, sport played, gender) believed they need athletic academic support to maintain their eligibility. Student-athletes have also expressed satisfaction with the academic support they have received (Kamusoko & Pemberton, 2013) and many contacted their athletic advisor when faced with an academic issue before anyone else (Bell, 2009).

On the other hand, there are drawbacks to these facilities. Student-athletes in revenue-generating sports have shown a dependency towards utilizing athletic academic support to maintain their eligibility (Ridpath, 2010). Ridpath found this dependency especially concerning for student-athletes in revenue-generating sports. He believed their reliance to be connected to additional pressure to maintain eligibility felt by these student-athletes. Concern has been raised these programs are hindering the development of self-efficacy for student-athletes due to their dependency (Burns, Jasinski, Dunn, & Fletcher, 2013; Hardin & Pate, 2013). In the Hardin and Pate (2013) study, one participant expressed their athletic academic center would "take control" of the student-athletes' scheduling of classes, therefore eliminating any decision-making required for the athlete. Additionally, student-athletes voiced apprehension their athletic advisor was only providing academic goals and support to maintain eligibility (Simons, Van Rheenen, & Covington, 1999). *The Coalition on Intercollegiate Athletics* (2005) recommended the need for athletic academic support to become further integrated within the academic support services already offered to other students to avoid the pressures put on athletic advising to minimize academic challenges for student-athletes in the name of sacrificing the athlete's career aspirations.

Having the academic support for student-athletes isolated from other academic buildings can also raise difficulties for student-athletes. A separate facility can decrease the probability of students connecting with higher education entities outside of athletics (Adler & Adler, 1991). Student-athletes are especially prone, with athletic-related time commitments only increasing their likeliness to be isolated from other college students and faculty (Rothschild-Checroune et al., 2012; Watt & Moore, 2001). Creating a strong connection with faculty has been shown to increase the role of academics in the student-athlete's higher education experience (Harrison, Comeaux, & Plecha, 2006). Connecting with peer groups outside of athletics can also potentially help reduce feelings of burnout (Gould & Whitley, 2009) and reinforce the importance of academics (Bell, 2009)

Regardless to their effectiveness, the changes to the NCAA academic standards have made student-athletes academic success a priority to the institution's advising personnel. If the retention and graduation of student-athletes is not maintained, it can lead to negative ramifications for both the individual student-athlete (e.g., ineligibility, loss of scholarship, failure to graduate) and the institution (lack of athletic success on the playing field, poor graduation rates) both parties are not willing to accept.

The Student-Athlete Experience

While student-athletes have many similarities in regards to their involvement on a college campus compared to the general student body, their experiences are quite different due to NCAA governance and challenges faced by their athletic status (Bell, 2009; Cantor & Prentice, 1996; Kamusoko & Pemberton, 2011). The experiences among student-athletes can also be quite different depending on factors including academic ability, gender, sport, and their National Collegiate Athletic Association (NCAA) level (Gurney & Stuart, 1987; Killeya-Jones, 2005;

Paule & Gilson, 2010; Sturm, Feltz, & Gilson, 2011). Though general college students have reasonable expectations on the amount of autonomy they have available to them while on their college campus, the same level of independence is an unlikely expectation for student-athletes.

The increased academic requirements for student-athletes. After “relaxing” academic standards for incoming student-athletes throughout the 1970’s, university presidents sought to realign academic standards for student-athletes to similar standards for the general student population. The 1983 NCAA Convention approved Proposition 48, which required prospective student-athletes to achieve a 2.0 grade point average (GPA) in high school in eleven core courses and a 700 on their SAT (Oriard, 2012). Additionally, the NCAA increased both the GPA requirements (from 2.0 to 2.3 for incoming freshman) and core courses (from 11 to 16) (Oriard). In 1990 the federal government passed the Student Right-To-Know and Campus Security Act, which forced every university receiving federal aid to report the graduation statistics for full-time students within a six-year period (Student Right-to-Know and Campus Security Act of 1990). The NCAA used this federal data for many years to formulate the graduation rates of student-athletes, but found it problematic due to the lack of data on transfer student-athletes (NCAA, 2010). To compensate, the NCAA created the Graduation Success Rate (GSR) and the Academic Progress Rating (APR), which harnessed the NCAA’s ability to track student-athletes transferring between institutions, progression towards their degree, and graduate within a six-year window (NCAA, 2010). APR goes beyond student-athlete accountability by requiring the institution to also accept some responsibility for the academic performance of student-athletes. The APR is a point-based system that awards the institution if the student-athlete remains at the institution and if they remain academically eligible (NCAA, 2013a). In 2012 the NCAA created a mandatory institution (and team) APR score of 900. If a team’s APR score falls below 900, the team could be penalized by loss of scholarships, loss of practice time, and prohibition of postseason participation among lesser penalties (Harrison, 2012).

As the NCAA’s academic standards for student-athletes increased, many student-athletes recruited for their athletic prowess found the collegiate classroom environment challenging. Thus, colleges and universities offered additional resources to student-athletes (e.g., academic advisors, tutors, career counselors, dedicated study hall space) in an effort to increase their academic skill and expectations of college courses.

Admissions and first-year in college. The NCAA has increased the initial eligibility standards for prospective student-athletes due to concerns about student-athletes being ill equipped for the academic rigor of higher education (Oriard, 2012). Certain universities have “special” committees for prospective students who do not qualify for the university’s admission standards, with student-athletes being admitted due to their athletic ability (Espenshade, Chung, & Walling, 2004; Gurney & Stuart, 1987). Students admitted while not achieving the traditional admissions’ standards exposes them to the challenges of acclimating to the increased academic rigor in higher education.

After clearing any potential hurdles with admissions, student-athletes still confront difficulties in their first year in college beyond what is encountered by the traditional college student. Freshmen student-athletes frequently struggle with their classwork due to their athletic obligations (Lally & Kerr, 2005). These first-year miscues often force them to exert additional effort to restore their GPA or aspirations for graduate school (Lally & Kerr, 2005; Miller & Kerr, 2002).

Time constraints and academic clustering. According to Cantor and Prentice (1996), participation in college sport is one of the most time consuming activities for college students.

This increased strain on student-athletes has exhibited a decrease their available study time (Rothschild-Checroune, Gravelle, Dawson, & Karlis, 2012) resulting in lower academic achievement (Athletics, 2005) and decreased availability to attend programming (Kamusoko & Pemberton, 2013). It also negatively impacts their ability to register for classes (Potuto & O Hanlon, 2007) and autonomy (Kimball, 2007; Paule & Gilson, 2010). The NCAA has created legislation protecting student-athletes from practicing beyond 20 hours per week, but others have suggested student-athletes frequently go beyond this maximum (Benford, 2007).

Student-athletes may change to a major better aligning with their practice and/or game schedule (Capriccioso, 2006), rather than seeking a major of personal interest (Fountain & Finley, 2011). If enough student-athletes on the same team possess the same major it becomes academic clustering. Academic clustering is when more than 25 percent of the team have the same major (Fountain & Finley, 2009; Schneider, Ross, & Fisher, 2010). Academic clustering becomes problematic for college students due to its negative impact on future career earnings and the increased likeliness of students leaving college without their degree (Sanders & Hildenbrand, 2010). Research has shown student-athletes are more likely to choose a less rigorous major (Cantor & Prentice, 1996) or change to a clustered major the longer they attend higher education (Fountain & Finley, 2011) than other college student sub-populations. Additionally, academic clustering has shown to become frequent enough that some teams have over 70 percent of their student-athletes clustered in one major (Fountain & Finley, 2009).

Theoretical Framework

Higher education institutions are constantly trying to provide an improved model to increase the academic retention and success for their students. Traditional theories of student development have focused on two primary pedagogies, content theory and resource theory (Astin, 1999). Content theory emphasizes course content and the transmission of knowledge from professor to student. Astin suggests such a passive approach favors highly motivated students (Astin, 1984). Resource theory postulates a combination of campus resources (e.g., facilities, faculty members, student affairs professional, fiscal resources) enhances student learning and development (Foa & Foa, 1980). What these theories fail to consider is the active participation of the student. A critical shortfall of resource theory is “its focus on the mere accumulation of resources with little attention given to the use or deployment of such resources” (Astin, p. 521). Astin’s Student Involvement Theory (1984), however, focuses on how students can control their own development in college through active participation with faculty and other campus entities.

Student Involvement Theory, “refers to the amount of physical and psychological energy that the student devotes to the academic experience” (Astin, 1999, p. 518). By allowing the student to take an active role in their participation, the opportunity for student development is increased (Astin, 1999). As an example, Astin (1999) discussed a history student can perform activities to meet this goal, such as “listening to professors’ talk about history, reading books about history, and discussing history with other students” (Astin, 1999, p. 522). The Student Involvement Theory is based on quantitative results examining the experiences of college students before and after their freshman year (Astin, 1977, 1993). These studies examined multiple student activities (e.g., involvement with faculty, student peers) and their positive impact on over 80 different student outcomes (i.e., participation in extracurricular activities, such as athletics).

University personnel (e.g., faculty, academic advisors, counselors) are positioned in a supplementary role. They assist the student in residency, academic involvement, student-faculty interaction, athletic involvement, honor's programming, and student life (Astin, 1984). For college students involved in varsity athletics, campus involvement may be limited to interaction with other student-athletes in athletic facilities. Student-athletes tend to be isolated from their non-student athlete peer groups and faculty members, which can hinder academic and personal development. While the Student Involvement Theory has steadily been applied towards the university's role in student success, there is a lack of literature focused on the effectiveness of modern facilities or facilities/personnel designed explicitly for a college student sub-population. Student athlete-centered academic centers are a recent phenomenon (Wolverton, 2008), which implores the question of their effectiveness to assist students acclimate academically on their college campus. Additionally, the Student Involvement Theory has rarely been applied to student-athletes, and has been traditionally a complementary finding (Astin 1984, 1999).

Research studies have expressed concern with student-athletes becoming overly involved with their athletic obligations to the point of detriment for their cultural attitudes, confidence outside of a sport environment, and reduced communication skills (Adler & Adler, 1991; Gaston-Gayles & Hu, 2009). This increased involvement is explicitly found within athletic activities, which further isolates student-athletes from other academic social interaction opportunities. Astin (1984) suggested academic advisors have an important role providing them a unique opportunity to help them connect with academic opportunities on campus because of their frequency of meeting on a one-on-one basis.

Method

Participants

Participants for this study included current student-athletes were athletically eligible during the 2012-2013 and 2013-2014 academic years. The participating institutions were chosen by stratified sampling technique. There was concern smaller, private NCAA Division I institutions may not have the revenue to construct similar lavish, stand-alone athletic academic centers currently being introduced on campuses of public institutions (Wolverton, 2008). Due to this potential discrepancy, the researchers sought to include participants from both public and private education settings. The sample included participants from one public NCAA Division I institution in the Midwest and two private NCAA Division I institutions in the Northeast. Each institution was contacted through an athletic administrator who oversees student-athletes and presented with an overview of the research project. Each athletic administrator approved the instrument before agreeing to disseminate the survey. The athletic administrators confirmed student-athletes were required to meet with an academic and faculty advisor.

After receiving approval from the human subjects committee, a total of 1,319 participants received the survey (416 participants at the public institution, 902 participants at private institutions). After two weeks the participants were sent a reminder if they had yet to complete the survey. A total of 246 participants had completed the study, resulting in an 18.7 percent response rate. While this response rate is not as high as desired, prior research has found that surveys that are web based tend to yield lower response rates than paper surveys (Baruch & Holtom, 2008; Shih & Fan, 2008). After the completion of the survey, 52 participants were removed from the study due to inadequate completion of the survey, leaving a total of 196

participants for analysis. Nulty (2008) recommends a response rate of 12 percent or higher for studies utilizing a sample of 200 participants.

Instrumentation

An online questionnaire created using Qualtrics survey software was used for this research study. The researchers developed an instrument after a review of past and current literature on the subject. It was adjusted and approved by a team of expert content reviewers, including three assistant or head athletic directors and two active scholars in the field. The survey was then pilot tested to a sport-marketing course that included both student-athletes and traditional college students. Feedback from the first pilot study improved the readability of the instrument's items. The survey was sent to another pilot-study group, which consisted only of student-athletes, to further test the survey's validity. No changes were made following the second pilot study group.

Items were constructed to measure five different sections: the student-athlete's perceptions of their athletic advisor, academic advisor, faculty advisor, resources available at the athletic academic center, and hindrances associated with having the athletic academic center physically isolated from other academic services. The participants were provided with a five-point Likert scale to answer each of the 28 questions. The five subscales, including the inter-rater reliability, are described as follows:

Athletic advising (four items). Respondents defined the frequency that they discussed academic issues with their athletic advisor, as well as the priority they perceived the athletic advisor placed on their academics. Additionally, respondents were asked about the frequency with which they discussed athletic and personal issues and the priority they perceived from their athletic advisor ($\alpha = .730$).

Academic advising (four items). Respondents were asked to define the frequency with which they discussed academic issues with their academic advisor, as well as the perception that their academic advisor kept their academics a priority. Respondents were also asked about whether academic advisors discussed their athletic and personal issues with them, and whether they believed that academic advisors kept those issues a priority when they met ($\alpha = .703$).

Faculty advising (four items). Respondents defined the frequency they discussed academic issues when they met with their faculty advisor, as well as the priority they perceived the faculty advisor had in their academics. Additionally, respondents defined the frequency they discussed their athletic and personal issues, and the priority they perceived, from their faculty advisor ($\alpha = .708$).

Athletic center resources (eight items). Respondents provided input on the resources and benefits from the athletic academic center. The resources ranged from computer technology, tutors, and career support. Benefits ranged from the athletic academic center location, improving the prospects of securing a career, and improved study space ($\alpha = .781$).

Hindrances of athletic center (five items). Finally, respondents were asked about potential hindrances they faced by having all of their academic support services within one building that is separate from other institutional academic services. Respondents were asked specifically about their perceptions of being hindered in connecting with faculty, student organizations, non-athlete students, studying, and community service ($\alpha = .885$).

Finally, student-athletes were also asked to include demographic information, which included gender, race, academic class, academic major, sport played, and current grade point

average. Further they were also asked about which services they had personally used (e.g. workshops) and how they would rank the services offered by their athletic academic center.

Data Analysis

A variety of analyses were used to address each of the research questions. For RQ1, a series of t-tests were used to assess the participants' satisfaction differences that advisors (athletic, academic, and faculty) kept their academic, athletic, and personal issues a priority during their appointments. To ensure reliability of three variables being measured using t-tests, a more rigorous p value of .01 was the threshold of reporting statistical significance. A one-way analysis of variance (ANOVA) with Bonferroni post hoc multiple pairwise comparison was also utilized to test the differences of perceived priority of academic, athletic, and personal issues reported by student-athletes. During this analysis, the participants' time devoted inside the athletic academic center, participants' academic class (e.g. sophomore), and the participants' institutional status (private or public) were used as separate independent variables, with perceived priority from all three advisors (athletic, academic, and faculty) as the dependent variables.

For RQ2, for testing the differences of perceived academic resources available, the researchers utilized a one-way ANOVA. During this analysis, the participants' institutional status, gender, races, academic class, time devoted inside the athletic academic center, and whether the student-athletes participated in a high-profile sport were used as separate independent variables, with perceived resources available to student-athletes as the dependent variables. High-profile sport was defined as participation in either men's basketball or football (Gaston-Gayles & Hu, 2009). Additionally, a one-way multivariate analysis of variance (MANOVA) was used to determine the effect of perceived academic resources available within an athletic academic center might have on the participants' GPA and academic class.

For RQ3, a one-way ANOVA was calculated to test the differences of perceived hindrances created by having academic support for student-athletes isolated from other academic support services for college students. The participants' institutional status, gender, race, academic class, time devoted inside the athletic academic center, and whether the student-athletes participated in a high-profile sport were used as separate independent variables, with perceived hindrances created by having their athletic academic support services isolated as the dependent variables.

Results

Perceptions of Faculty, Academic, & Athletic Advising

Descriptive statistics (means and percentages) were calculated and are reported in Table 1. The results of differences in the priority perceived by participants from their advisors (athletic, academic, and faculty) indicate that the participants felt more confident that their academic advisor kept their academics a greater priority than their athletic advisor ($t [195] = -7.273, p < .01$) and faculty advisor ($t [195] = 4.611, p < .01$) (see Table 2). Additionally, participants felt more confident that their faculty advisor kept their academics a greater priority than their athletic advisor, ($t [195] = -3.848, p < .01$). There were no statistically significant findings when

comparing the differences of the participants' perceptions of their advisors keeping their athletic and/or personal issues a priority.

Table 1
Demographic Characteristics of Participants (n=196)

Characteristic	<i>n</i>	%
Gender		
Female	123	62.7
Male	73	37.2
Race		
White, Caucasian	157	80.5
Minority Races	38	19.5
Academic Class		
Freshman	17	8.8
Sophomore	55	28.4
Junior	65	33.5
Senior	57	29.4
Institution Type		
Public	137	69.9
Private	59	30.1
Sport Played		
Baseball	2	1
Basketball	2	1
Crew	3	1.5
Field Hockey	10	5.1
Football	11	5.6
Ice Hockey	7	3.6
Lacrosse	10	5.1
Rowing	9	4.6
Soccer	52	26.5
Softball	3	1.5
Swimming	42	21.4
Tennis	17	8.7
Track & Field	15	7.7
Volleyball	13	6.6

Table 2
Group Differences for Perceptions of Interactions with Advisors

	Athletic Advisor		Academic Advisor		<i>t</i> (195)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Collaboration with Advising						
Discussing Academics	3.14	1.33	3.22	1.18	-0.67	0.503
Academics are a Priority	3.50	1.33	4.27	0.92	-7.27	<.001
Discussing Athletics/Personal	2.57	1.27	2.38	1.90	2.18	0.031
Athletics/Personal are a Priority	3.45	1.31	3.32	1.39	1.44	0.152
	Academic Advisor		Faculty Advisor		<i>t</i> (195)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Discussing Academics	3.22	1.18	3.04	1.03	2.04	0.043
Academics are a Priority	4.27	0.92	3.92	0.96	4.61	<.001
Discussing Athletics/Personal	2.38	1.90	2.37	1.14	2.15	0.033
Athletics/Personal are a Priority	3.32	1.39	3.24	1.30	2.22	0.027
	Athletic Advisor		Faculty Advisor		<i>t</i> (195)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Discussing Academics	3.14	1.33	3.04	1.03	0.84	0.404
Academics are a Priority	3.50	1.33	3.92	0.96	-3.85	<.001
Discussing Athletics/Personal	2.57	1.27	2.37	1.14	0.07	0.947
Athletics/Personal are a Priority	3.45	1.31	3.24	1.30	1.00	0.321

Reported significant $p = <.01$.

Female participants ($M = 4.04$, $SD = 0.87$) were shown to have greater satisfaction with faculty keeping their academics a priority during their meetings than male participants ($M = 3.71$, $SD = 1.07$) ($F [1,194] = 4.94$, $p = .021$). Furthermore, participants at private institutions ($M = 2.90$, $SD = 1.56$) were less likely to believe athletic advisors kept their academics a priority during their meetings than participants from public institutions ($M = 3.76$, $SD = 1.12$) ($F [1,84.85] = 14.68$, $p < .01$). There were no statistically significant findings when investigating the differences of participants within race, academic class, or profile of student-athlete's sport.

There was also a statistical significant difference when examining the participant's institution and their interactions and perceived priority with their athletic advisor ($F [1,83.9] = 16.22$, $p < .01$) and academic advisor ($F [1,194] = 4.98$, $p = .027$) regarding athletic and personal issues. Participants from private institutions perceived their athletic advisors kept their athletic and personal issues a lower priority ($M = 2.83$, $SD = 1.54$) during their meetings compared to participants from public institutions ($M = 3.72$, $SD = 1.09$). Private institution participants also

perceived a lower priority for athletic/personal issues ($M = 2.98$, $SD = 1.41$) for academic advisors compared to participants from public institutions ($M = 3.46$, $SD = 1.36$).

Statistical significance was also found regarding the athletic and personal priority received by student-athletes from both athletic advisors ($F [3,82.92] = 5.161$, $p < .01$) and academic advisors ($F [3,190] = 3.75$, $p = .012$) when comparing the participants' academic class. Post hoc comparisons using the Bonferroni test indicated that sophomore participants (and redshirt freshman) ($M = 3.82$, $SD = 1.36$) were more satisfied with the priority that their athletic advisor put on their personal and athletic concerns than seniors participants ($M = 3.07$, $SD = 1.36$). Sophomores ($M = 3.75$, $SD = 1.30$) were also found to be more satisfied with the priority that their athletic advisor put on their academic concerns than seniors ($M = 2.98$, $SD = 1.37$).

Perceptions of Athletic Academic Center Resources

There was also statistical significance for the participants' institution-type with regards to career resources ($F [1,84.84] = 13.94$, $p < .01$), available computer technology ($F [1,85.53] = 5.28$, $p < .01$), available workshops ($F [1,194] = 5.18$, $p = .024$), location of the center ($F [1,194] = 8.06$, $p < .01$), and tutor availability ($F [1,85.02] = 20.66$, $p < .01$). Student-athletes at private institutions responded that they were less satisfied with the resources available in their respective athletic academic centers compared to student-athletes at public institutions. There also was a significant difference on the perception of study space ($F [1,136.6] = 5.2$, $p = .024$) as it relates to gender, with females ($M = 3.96$, $SD = 0.90$) being more satisfied with the study space availability than males ($M = 3.63$, $SD = 1.02$). In addition to findings for institution type and gender, statistical significant findings were also found regarding academic class regarding perception of tutor availability ($F [3,68.57] = 4.83$, $p < .01$) and whether the athletic academic center's resources help them secure a career ($F [3,190] = 2.87$, $p = .038$). Senior participants ($M = 3.67$, $SD = 1.11$) reported lower perceptions with tutor availability in the athletic academic center than freshman ($M = 4.41$, $SD = 0.71$) and sophomore ($M = 4.24$, $SD = 0.82$) student-athletes. Senior participants ($M = 3.39$, $SD = 1.11$) also perceived that resources available in their athletic academic center were less likely to help them secure a career than freshman ($M = 4.12$, $SD = 0.70$) participants. There were no statistically significant findings related to the profile level of the student-athlete's sport.

Using Wilk's Lambda, there was a statistically significant effect of athletic academic center resources on the GPA that was self-reported by the participants, ($\Lambda = .80$, $F [24,502.354] = 1.73$, $p = .018$), with participants with lower self-reported GPA having a decreased perception of available resources compared to higher self-reported GPAs, which is reported on Table 3. Additionally, univariate analysis of variance revealed statistically significant result of seminars/workshops that are offered ($F [3,180] = 3.128$, $p = .027$) and the participant's belief that resources available to them will increase their ability to secure a full-time job after college ($F [3,180] = 2.867$, $p = .038$) as it relates to GPA. Planned contrasts revealed participants who were at the greatest risk of losing their eligibility for athletic participation, participants with a GPA between 2.0-2.5, had lower perceptions of the resources available to them in the athletic academic center would help them secure a full-time job after college, ($p = .041$). There was also a significant effect of athletic academic center resources on the participant's academic class, ($\Lambda = .79$, $F [24,531.357] = 1.89$, $p < .01$). Post hoc analyses revealed that freshman ($M = 4.41$, $SD = 0.71$) and sophomore participants ($M = 4.24$, $SD = 0.82$) possessed more positive perceptions with the tutorship availability than senior participants ($M = 3.67$, $SD = 1.11$).

Table 3
Multivariate and Univariate Analyses of Variance for Grade Point Average

		GPA	Class
Multivariate	F ^a	1.728	1.892
	<i>p</i>	.018	.007
	η ²	.074	.076
Academic Career Resources	F ^a	.534	1.601
	<i>p</i>	.659	.190
	η ²	.009	.025
Computer Technology	F ^a	1.064	.394
	<i>p</i>	.366	.757
	η ²	.017	.006
Study Space	F ^a	1.656	1.141
	<i>p</i>	.178	.334
	η ²	.027	.018
Workshops	F ^a	3.128	1.322
	<i>p</i>	.027	.269
	η ²	.050	.020
Athletic Center Location	F ^a	2.134	2.154
	<i>p</i>	.098	.095
	η ²	.034	.033
Tutor Availability	F ^a	1.611	4.689
	<i>p</i>	.188	.003
	η ²	.026	.069
Study Environment	F ^a	2.867	2.597
	<i>p</i>	.038	.054
	η ²	.046	.039
Athl. Resources Lead to Jobs	F ^a	1.433	2.870
	<i>p</i>	.235	.038
	η ²	.023	.043

Note. Multivariate *F* ratios were generated from Wilk's Lambda statistic.

^aMultivariate *df*=3,180. ^bUnivariate *df*=1,182.

Hindrances of Athletic Academic Center

There was a statistical significance regarding the athletic academic center hindering connections with faculty ($F [3,60.89] = 3.58, p = .019$) as it relates to academic class. Post hoc comparisons using the Bonferroni test indicated that sophomore participants reported being hindered at a greater level connecting with faculty ($M = 3.20, SD = 1.11$) when compared to junior participants ($M = 2.68, SD = 0.77$) and senior participants ($M = 2.68, SD = 1.07$) because of their athletic academic support being isolated on campus.

There was also a statistically significant difference between participants at public universities and private universities and the perceived impediments of the athletic academic center. Student-athletes attending public universities were more likely to feel the athletic academic center hindered connections with faculty ($F [1,194]= 5.28, p = .023$), student organizations ($F [1,194]= 5.313, p = .022$), studying ($F [1,194]= 25.623, p < .01$), and community service ($F [1,194]= 8.15, p < .01$) than participants from private institutions.

Discussion and Implications

The purpose of this study was to investigate student-athlete perceptions as the academic resources and support staff within stand-alone athletic academic centers. First, this study assessed student-athletes' satisfaction with their athletic advisor, academic advisor, and faculty advisor as it relates to academic, athletic, and personal issues. Second, we examined student-athlete access to resources available in their respective athletic academic centers. Finally, we explored factors that might impede student-athletes from connecting with other campus resources.

Student-athletes at both public and private institutions felt more confident academic and faculty advisors kept their academic goals a priority than their athletic advisors. This finding underscores previous research which suggests student-athletes may be more likely to seek academic advising *outside* of their respective athletic departments because athletes perceive faculty advisors and academic advisors are more likely to keep their academic goals in mind (Kamusoko & Pemberton, 2011) rather than advising in a manner to ensure athletic eligibility (Benson, 2000; Simons et al., 1999). Furthermore, the notion student-athletes seek advising outside of their athletic department emphasizes active student involvement, which has the potential to increase student academic and personal development. In fact, Astin (1999) suggested "students who interact frequently with faculty members are more likely than other students to express satisfaction with all aspects of their institutional experience..." (p. 525). This finding also extends previous research because survey participants perceived academic advisors and faculty advisors as more likely than their athletic advisors to keep academics a priority.

Additionally, female student-athletes were more likely than male student-athletes to perceive that faculty kept their academic goals a priority. Perhaps this is because male student-athletes perceive more opportunities to continue competing at a professional level after college (Tyranice et al., 2013); thus, discussing academic goals with a faculty advisor are less of a priority. Considering the majority of male and female student-athletes will not compete at a professional level, it is imperative athletic advisors, coaches, and athletic administrators encourage student-athletes to make connections with faculty and academic advisors.

In terms of athletic academic center, student-athletes at private institutions were less satisfied with the resources available in their respective athletic academic centers compared to student-athletes at public institutions. This finding is not surprising considering many private institutions may encourage student-athletes to utilize campus resources because specific space for student-athletes is limited or not available. Moreover, private institutions often contend with more budgetary constraints and may not be able to allocate additional resources for student-athlete academic support. For example, *US News & World Report* recently named Princeton University the top private school in the United States and University of California, Berkeley (Cal) the top public institution. A budget of just over \$22 million supports Princeton athletics while Cal boasts an athletic budget of just under \$92 million (US Department of Education, 2014). The

Athletic Study Center at Cal has a full-time staff of 19, including six academic advisors and three learning specialists (UC Berkeley, 2014). Princeton does not have a space or staff specifically designated for student-athlete academic support.

This example should not suggest Princeton does not allocate resources to student-athlete academic success. Instead, the \$70 million difference in athletics budgets illustrates how colleges and universities with fewer resources might not be able to provide academic support centers like their public counterparts. Interestingly, our findings suggest while students at private institutions would like more athletic academic center resources, the public school student-athletes felt additional resources negatively impacted their ability to connect with other students, faculty, and campus resources. As noted by Astin (1999), colleges and universities apply resource theory to the student experience often do so without consideration to how the resources are used or deployed. Thus, public and private institutions considering investing resources in athletic academic facilities and programs should evaluate how such an investment might impact the student-athlete experience.

Though the facility names suggest otherwise, many athletic academic centers also support programming for student-athlete development including career planning. Previous research has found student-athletes are less prepared for careers after college than students who are not athletes (Lottes, 1991; Tyrance et al., 2013; Watt & Moore, 2001). The findings suggest, over time, student-athletes become less satisfied with the career exploration and planning services offered by their respective athletic academic centers. Multiple studies emphasize designing courses and programs addressing career development and exploration (Carodine, Almond, & Gratto, 2001; Etzel, Barrow, & Pinkey, 1994; Murphy, Petitpas, & Brewer, 1996; Watt & Moore, 2001). Researchers suggest such programs should include helping students identify career interests and values in order to develop an understanding of personality in the workplace (Carodine et al.; Watt & Moore). Students also benefit from identifying necessary skill sets for a particular work environment as well as potential occupations and career paths (Carodine et al.).

In addition to academic and career concerns, the findings of this study also revealed differences in how students perceived the athletic academic center in relation to other campus and community involvement. More specifically, the student-athletes in this study felt spending time in the athletic academic center hindered their ability to study, connect with faculty, and participate organizations and community service. Carodine et al. (2001) suggested interactions with faculty and campus life enhance the student-athlete experience both personally and academically. Unfortunately, spending time in the athletic academic center has the potential to inhibit not only student-athlete development, but also the college student experience (Murphy et al., 1996). Thus, athletic departments should collaborate with other campus offices to develop and implement programming engages student-athletes and the general student population.

Astin's (1999) Student Involvement Theory discusses concern of student-athletes having reduced interactions with other students because of their athletic commitments. This study's findings only reinforce Astin's theoretical concerns. Astin highlighted the importance of the university to play a supplementary role to academically assist their students. Student-athletes expressed doubts about their athletic counselor maintaining focus on supporting their academic pursuits, including career counseling, which conflicts with Astin's theory. Additionally, it can be assumed new student facilities can qualify as universities providing an environment is conducive to the academic success of their students. Contrary, the facilities were investigated in this study were only available for a select sub-population of college students, limiting the impact achieved by the university, especially when factoring the financial cost of construction. Because these

facilities are explicitly for student-athletes, it raises the concern of student-athletes not connecting with non-athlete students. While this study did not examine the impact of athletic academic advising on retention and graduation of the participants, it does cast doubt on the potential impact of athletic academic support on the holistic academic success of student-athletes. If student-athletes are not confident in athletic academic advising personnel prioritizing academics, it reduces the potential benefit of having an additional layer of academic support for student-athletes.

Despite these findings, college and universities across the United States continue to invest in considerable financial and human resources into facilities and services designated to support academic and personal development of student-athletes. For example, the University of Oregon constructed The Jaqua Center in 2010 for student-athletes at a cost of \$41.7 million (GoDucks.com, 2014). The facility includes computer stations, teaching labs, advising offices, a library, and private tutor rooms. The first floor of the building is open to the public and offers a space for socializing and a café for dining. At Michigan State University, the \$7.5 million Smith Academic Center (MSUSpartans.com, 2014) has amenities similar to The Jaqua Center, and also offers 13 staff members to assist with course registration, grade monitoring, eligibility, and tutoring services. While large state schools like Oregon and Michigan State have invested millions of dollars into academic support facilities and services, smaller colleges and universities have followed suit by adding academic advisors and graduate assistants to assist with student-athlete academic eligibility and career development.

Conclusion

While sport fans and scholars have debated whether academic facilities and support services are “necessary evils” in the college athletics “arms race” (Bennett, 2014), research suggests the support provided to student-athletes through academic athletic centers are potentially improving their graduation rates. For example, over an 11-year span, the overall graduation success rate for student-athletes increased from 74 percent (in 1995) to 82 percent (in 2006) (NCAA, 2013d).

However, students from the present study at both public and private institutions felt more confident academic and faculty advisors kept their academic goals a priority than their athletic advisors. The student-athletes in this study also indicated time spent in the athletic academic center negatively affected their ability to connect with faculty, participate in campus organization and community service, and studying. Therefore, practical implications suggest further collaboration between athletic departments and other campus offices to develop and implement programming engages student-athletes and the general student population. Furthermore, future research of student-athletes' satisfaction in relation to actual graduation rates could help both athletic and academic administrators identify the confluence of resources positively impact student-athletes' development and long-term success in the academic realm.

Limitations/Future Recommendations

Finally, it should be noted that Nulty's (2008) study confirmed this study's sample size is within the accepted parameters of an online survey with 200 respondents, but the lower response rate does reduce the generalizability of the findings to the entire population. Another limitation in our study is the representation of a single public institution in the study. A future study would

be prudent to involve multiple institutions with both public and private designations. Again, this study was limited to only NCAA Division I institutions, while future studies involving both Division II and Division III institutions may elicit different results. Finally, this study is limited to the current athletic academic centers possessed by each university. A future study could explore the changing opinions of student-athletes experiencing a transition from one athletic academic center to another.

References

- Arnett, J. J. (1994). Are college students adults? Their conceptions of the transition to adulthood. *Journal of Adult Development, 1*(4), 213-224.
- Adler, P. A., & Adler, P. (1991). *Backboards and blackboards: College athletes and role engulfment*. New York, NY: Columbia University Press.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*, 297-308.
- Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of College Student Development, 40*, 518-529.
- Bachman, R. (2010, January 4). New Oregon academic center, backed by Phil Knight, sets new standards [Web log post]. from http://blog.oregonlive.com/behindducksbeat/2010/01/new_oregon_academic_center_bac.html
- Barrett, P. M. (2014, January 2). The scandal bowl: Tar Heels football, academic fraud, and implicit racism. *Businessweek*. from <http://www.businessweek.com/articles/2014-01-02/the-scandal-bowl-tar-heels-football-academic-fraud-and-implicit-racism#r=most%20popular>
- Baruch, Y., & Holtom, B. C. (2008). Survey response rate levels and trends in organizational research. *Human Relations, 61*, 1139-1160.
- Bell, L. F. (2009). Examining academic role-set influence on the student-athlete experience (Special Issue). *Journal of Issues in Intercollegiate Athletics, 2*, 19-41.
- Benford, R. D. (2007). The college sports reform movement: Reframing the “edutainment” industry. *The Sociological Quarterly, 48*(1), 1-28.
- Broughton, E., & Neyer, M. (2001). Advising and counseling student athletes. *New Directions for Student Services, 2001*(93), 47-53.
- Burns, G. N., Jasinski, D., Dunn, S., & Fletcher, D. (2013). Academic support services and career decision-making self-efficacy in student athletes. *The Career Development Quarterly, 61*, 161-167.
- Cantor, N. E., & Prentice, D. A. (1996). *The life of the modern-day student-athlete: Opportunities won and lost*. Paper presented at the Princeton Conference on Higher Education, Princeton University, Princeton, NJ.
- Capriccioso, R. (2006). Tackling Favoritism for Athletes. *Inside Higher Ed*. <http://www.insidehighered.com/news/2006/07/20/sports>
- Comeaux, E. (2013). Rethinking academic reform and encouraging organizational innovation: Implications for stakeholder management in college sports. *Innovative Higher Education, 38*, 281-293.
- Crowley, J. N. (2006). *In the arena: the NCAA's first century*. Indianapolis, IN: National Collegiate Athletic Association.
- Eitzen, D. S. (1987). The educational experiences of intercollegiate student-athletes. *Journal of Sport and Social Issues, 11*(4), 15-30.
- Espenshade, T. J., Chung, C. Y., & Walling, J. L. (2004). Admission preferences for minority students, athletes, and legacies at elite universities. *Social Science Quarterly, 85*, 1422-1446.
- Foa, E. B., & Foa, U. G. (1980). Resource Theory. In K. J. Gergen, M. S. Greenberg & R. H. Willis (Eds.), *Social Exchange* (pp. 77-94): Springer.

- Fountain, J. J., & Finley, P. S. (2009). Academic majors of upperclassmen football players in the Atlantic Coast Conference: An analysis of academic clustering comparing white and minority players. *Journal of Issues in Intercollegiate Athletics*, 2, 1-13.
- Fountain, J. J., & Finley, P. S. (2011). Academic clustering: A longitudinal analysis of a Division I football program. *Journal of Issues in Intercollegiate Athletics*, 4, 24-41.
- Gaston-Gayles, J., & Hu, S. (2009). The influence of student engagement and sport participation on college outcomes among Division I student athletes. *The Journal of Higher Education*, 80, 315-333.
- Gould, D., & Whitley, M. A. (2009). Sources and consequences of athletic burnout among college athletes. *Journal of Intercollegiate Sport*, 2(1), 16-30.
- Gurney, G. S., & Stuart, D. L. (1987). Effects of special admission, varsity competition, and sports on freshman student-athletes' academic performance. *Journal of College Student Personnel*, 28, 298-302.
- Hardin, R., & Pate, J. R. (2013). Playbook vs. textbook: Examining academic transitioning of NCAA Division I-FBS football student-athletes. *Journal for the Study of Sports & Athletes in Education*, 7, 229-244.
- Harrison, C. K., Comeaux, E., & Plecha, M. (2006). Faculty and male football and basketball players on university campuses. *Research Quarterly for Exercise and Sport*, 77, 277-284.
- Harrison, W. (2012). NCAA academic performance program (APP): Future directions. *Journal of Intercollegiate Sport*, 5(1), 65-82.
- Hemwall, M. K. (2008). Advising delivery: Faculty advising. In V. N. Gordon, W. R. Habley, T. J. Grites & Associates (Eds.), *Academic advising: A comprehensive handbook* (pp. 253-266). Manhattan, KS: National Academic Advising Association.
- Hesel, R., & A., Perko. (2010). A sustainable model? University presidents assess the costs and financing of intercollegiate athletics. *Journal of Intercollegiate Sport*, 3(1), 32-50.
- Heiss-Arms, J., Cabrera, A. F., & Brower, A. M. (2008). Moving into students' spaces: The impact of location of academic advising on student engagement among undecided students. *NACADA Journal*, 28(1), 8-18.
- Kamusoko, S. D. , & Pemberton, C. L. A. (2011). Student-athlete wellbeing and higher education persistence. *Journal of Issues in Intercollegiate Athletics*, 4, 207-235.
- Kamusoko, S. D. , & Pemberton, C. L. A. (2013). Student-athlete wellbeing and persistence: An in-depth look at student-athlete perceptions. *Journal for the Study of Sports and Athletes in Education*, 7(1), 41-61.
- Killeya-Jones, L. A. (2005). Identity structure, role discrepancy and psychological adjustment in male college student-athletes. *Journal of Sport Behavior*, 28, 167-185.
- Kimball, A. C. (2007). "You signed the line": Collegiate student-athletes' perceptions of autonomy. *Psychology of Sport and Exercise*, 8, 818-835.
- Knight Commission on Intercollegiate Athletics. (2001). *A call to action: Reconnecting college sport and higher education*. Miami, FL: Author.
- Knight Commission on Intercollegiate Athletics. (2014). *Trends in spending and institutional funding*. Retrieved from <http://spendingdatabase.knightcommission.org/fbs>
- Kuhn, T. L. (2008). Historical foundations of academic advising. In V. N. Gordon, W. R. Habley, T. J. Grites & Associates (Eds.), *Academic advising: A comprehensive handbook* (pp. 3-17). Manhattan, KS: National Academic Advising Association.

- Lally, P. S., & Kerr, G. A. (2005). The career planning, athletic identity, and student role identity of intercollegiate student athletes. *Research Quarterly for Exercise and Sport*, 76, 275-285.
- Miller, P. S., & Kerr, G. A. (2002). The athletic, academic and social experiences of intercollegiate student-athletes. *Journal of Sport Behavior*, 25, 346-367.
- Murphy, G. M., Petitpas, A. J., & Brewer, B. W. (1996). Identity foreclosure, athletic identity, and career maturity in intercollegiate athletes. *The Sport Psychologist*, 10, 239-246.
- National Association of Academic Advisors for Athletics. (2010). N4A history. Retrieved from <http://nfoura.org/about/history.php>
- NCAA. (2009). Florida State University public infractions report. Indianapolis, IN: Author.
- NCAA. (2010). Graduation rates. Retrieved from <http://www.ncaa.org/wps/wcm/connect/public/NCAA/Resources/Research/Graduation+Rates>
- NCAA. (2011a). NCAA grad rates hit all-time high. Retrieved from <http://www.ncaa.com/news/ncaa/article/2011-10-25/ncaa-grad-rates-hit-all-time-high>
- NCAA. (2011b). NCAA grad rates top 80 percent. Retrieved from <http://www.ncaa.org/wps/wcm/connect/public/NCAA/Resources/Latest+News/2011/October/NCAA+grad+rates+top+80+percent>
- NCAA. (2013a). Academic Progress Rate (APR). Retrieved from <http://www.ncaa.org/wps/wcm/connect/public/NCAA/Academics/Division+I/Academic+Progress+Rate>
- NCAA. (2013b). Division I revenue distribution - \$503 million. Retrieved from <http://www.ncaastudent.org/wps/wcm/connect/public/ncaa/finances/finances+distributions>
- NCAA. (2013c). *NCAA Division I Manual*. Indianapolis, IN: Author.
- Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done?. *Assessment & Evaluation in Higher Education*, 33, 301-314.
- Oriard, M. (2012). NCAA academic reform: History, context and challenges. *Journal of Intercollegiate Sport*, 5(1), 4-18.
- Paule, A. L., & Gilson, T. A. (2010). Current collegiate experiences of big-time, non-revenue, NCAA athletes. *Journal of Intercollegiate Sport*, 3, 333-347.
- Potuto, J.R., & O Hanlon, J. (2007). National study of student-athletes regarding their experiences as college students. *College Student Journal*, 41(4), 947.
- Ridpath, B. D. (2010). Perceptions of NCAA Division I athletes on motivations concerning the use of specialized academic support services in the era of the Academic Progress Rate. *Journal of Issues in Intercollegiate Athletics*, 3, 253-271.
- Rothschild-Checroune, E., Gravelle, F., Dawson, D., & Karlis, G. (2012). Balancing academic and athletic time management: A qualitative exploration of first year student athletes' university football experiences. *Loisir et Société/Society and Leisure*, 35, 243-261.
- Sanders, J., & Hildenbrand, K. (2010). Major concerns? A longitudinal analysis of student-athletes' academic majors in comparative perspective. *Journal of Intercollegiate Sport*, 3, 213-233.
- Schein, H. K. (1995). University residence halls in the academic-advising process. In R. E. Glennen & F. N. Vowell (Eds.), *Academic advising as a comprehensive campus process* (pp. 115-120). Manhattan, KS: National Academic Advising Association.

- Schneider, R. G., Ross, S. R., & Fisher, M. (2010). Academic clustering and major selection of intercollegiate student-athletes. *College Student Journal*, *44*(1), 64-70.
- Shih, T. H., & Fan, X. (2008). Comparing response rates from web and mail surveys: A meta-analysis. *Field methods*, *20*, 249-271.
- Simons, H. D., Van Rheenen, D., & Covington, M. V. (1999). Academic motivation and the student athlete. *Journal of College Student Development*, *40*, 151-162.
- Sturm, J. E., Feltz, D. L., & Gilson, T. A. (2011). A comparison of athlete and student identity for Division I and Division III athletes. *Journal of Sport Behavior*, *34*, 295-306.
- The Coalition On Intercollegiate Athletics. (2005). *Academic integrity in intercollegiate athletics: Principles, rules, and best practices*. Retrieved from <http://blogs.comm.psu.edu/thecoa/wp-content/uploads/Academic-Integrity-in-Intercollegiate-Athletics-2005.pdf>
- University, Texas A&M. (n.d.). Alice and Erle Nye '59 Academic Center. Retrieved from <http://www.aggieathletics.com/ViewArticle.dbml?ATCLID=205237882>
- Watt, S. K., & Moore, J. L. (2001). Who are student athletes? *New Directions for Student Services*, *2001*(93), 7-18.
- Weight, E. A., Weight, M. A., & Schneider, R. G. (2013). Confronting the arms race: Conference commissioner perspectives on spending within intercollegiate athletics. *International Journal of Sport Management*, *14*, 441-461.
- Wolverton, B. (2008, September 5). Rise in fancy academic centers for athletes raises questions of fairness. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Rise-in-Fancy-Academic-Centers/13493/>