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How the Perception of Athletic Academic Services affects the overall College Experience of Freshmen Student-Athletes

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How the perception of athletic academic services affects the overall college experience of freshmen student-athletes Marcella G. Otto, M.S. Louisiana State University J. Michael Martinez, Ph.D. Louisiana State University Christopher R. Barnhill, Ph.D. Georgia Southern University Resubmitted: Corresponding Author: Marcella G. Otto, M.S. Louisiana State University Sport Management 112 Huey Long Field House Baton Rouge, LA 70803 Email: motto2@lsu.edu

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How the Perception of Athletic Academic Services Affects the Overall College Experience of Freshmen Student-Athletes

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Abstract

More and more intercollegiate athletics programs are allocating strategic resources toward building attractive athletics facilities, lavish training and academic complexes, and high-quality support services. Strategic investments in these areas continue to be a high priority for major college athletics programs, all with the hopes of enhancing the overall college experience for student-athletes. As such, researchers have begun to examine the role these various support services play in the overall athletic program. In this aim, the present study seeks to understand how academic support services are successful in enhancing this experience. Findings indicate that freshmen student-athletes’ perceptions of service quality provided by their academic athletic services influence satisfaction, student involvement, and emotional adjustment. Building from these findings, university athletic departments should reevaluate and adjust their academic services based on the perception of student-athletes and how the provided services influence their overall college experience.

Keywords: College Athletics, Academic Services, Service Quality Perception

In recent years, intercollegiate athletics has experienced major growth in terms of revenue and exposure. New revenue streams from conference affiliation, postseason successes, lucrative television deals, sponsorships, and merchandise sales have allowed these programs to become more commercialized than ever (Sanderson & Seigfried, 2018). The increased competition of athletic departments on and off the field has led to what scholars refer to as the “arms race” (Bennett, 2012), referencing escalating costs associated with building better athletic venues (Huml, Pifer, Towle, & Rode, 2018) and hiring successful coaches to record-breaking contracts (Tsitos & Nixon, 2012). Yet, resources also are allocated toward off-the-field improvements (Caro, 2012), focusing on providing high-quality support services to collegiate athletes (Huml, Pifer, Towle, & Rode, 2018). Included in these support areas is the academic advising unit, which has been a beneficiary in terms of added resources, both facility-wise and in personnel (Wolverton, Kelderman, & Moser, 2008). In order to counter the difficulties in maintaining student-athlete eligibility, Wolverton et al. (2008) indicated athletic departments have been more willing to invest in academic services dedicated toward student-athletes. Scholars suggest this focus on academic personnel helps student-athletes overcome unique challenges (Martens & Lee, 1998; Young & Sowa, 1992). Besides being used as a key recruiting tool, these new buildings serve a greater need in providing adequate academic resources for student-athletes to be successful (Huml, Hancock, & Bergman, 2014).

Long considered a distinct student population because of the added pressure to compete, academic services are important in the overall experience for the student-athlete (Figler, 1987; Kamusoko & Pemberton, 2013). Consequently, athletic programs are providing more financial resources in staffing and personnel to help manage these academic service programs for student-athletes. Due to the increased focus on academic support, it is important to investigate the returns athletic departments are getting, in terms of student-athlete perceptions of those strategic investments and the benefits to the student-athlete experience. To address this need, research should examine the perception of freshmen student-athletes regarding their university’s athletic department academic services and the corresponding effects to their satisfaction, involvement, and emotional adjustment.

As student-athletes spend considerable time per week engaging in athletic-related activities (Huml et al., 2014), there still is an increased expectation from the NCAA to retain the academic eligibility of student-athletes. Outside of eligibility maintenance issues and academic guidance, academic advisors...
for student-athletes also play a crucial role in the overall development of the student-athlete experience in various areas, including emotional, social, and psychological needs (Jackson, Freeman-Horn, & Saucer, 2017). As such, Gayles and Hu (2009) claim that it is necessary to obtain more information about how student-athletes can improve their overall college experience by being exposed to activities that promote personal and learning development.

Little research has focused on the perception that student-athletes have of academic services and how these perceptions influence their satisfaction, involvement, and engagement. Of the few studies, some looked at levels of satisfaction with athletic department services (Kamusoko & Pemberton, 2013), while others explored the guidance that these services provide in both academic and career focused areas (Hardin & Pate, 2013). Moreover, examining the perceptions of student-athletes regarding athletic academic centers found feelings of isolation and preference of relying on an academic advisor for their academic goals instead of an athletic advisor (Bell, 2009; Huml et al., 2014). Another study found varying satisfaction levels amongst class levels, demonstrating freshmen student-athletes indicate lower satisfaction levels compared to upper classmen (Hazzaa, Sonkeng, & Yoh, 2018). While these studies explored satisfaction with the quality of academic services functions, there is a gap in research in terms of how these perceptions influence other areas of the student-athlete’s college experience. Therefore, it is necessary to examine other outcomes through the student-athletes’ perception of academic services in order to close this gap. More specifically, it would allow developing a better understanding of the impact academic services have on freshmen student-athletes and how it affects their overall college experience. Thus, the purpose of the present study is to investigate how freshmen student-athletes perceive their university’s athletic department academic services affect their satisfaction, involvement, and emotional adjustment.

### Conceptual Framework and Background

The theories of Student Involvement (Astin, 1984) and Social Exchange (Blau, 1964) guide the conceptual framework for this study. Student involvement theory proposes that individuals may increase their personal and learning development by being involved in meaningful activities during their academic career, leading to an increased satisfaction of their overall college experience (Astin, 1999; Umbach, Palmer, Kuh, & Hannah, 2006). Moreover, social exchange could be a strong indicator when assessing an individual’s behavior in the workplace, which also affects the establishment and formation of relationships (Cropanzano & Mitchell, 2005). There is an important difference between the student-athlete population and the student body regarding the athletic environment and culture, time constraints, and combining athletics with academics that affect the student-athlete’s experience (Jolly, 2008). Freshmen student-athletes are exposed to new opportunities that simultaneously force them to adjust to independency and a new environment (Pancer, Hunsberger, Pratt, & Alisat, 2000). Further, student-athletes tend to over-identify with their athlete role and experience difficulties advancing in their personal development (Watson & Kissingler, 2007).

### Student Involvement Theory

Astin (1999) explained student involvement as “the amount of physical and psychological energy that the student devotes to the academic experience” (p. 518). Besides experiencing academic success in order to stay at an institution, students must be involved in other areas of college life (Roberts & McNeese, 2010), such as social aspects (Gerdes & Mallinckrodt, 1994). Additionally, students are more open to learning when being involved in important activities during their studies (Gayles, 2009). This includes forming relationships with faculty and other students, participating in student organizations and groups, and completing assignments. Building relationships with other peers is an important first step in order to become involved on campus, including participation in organized or intramural athletics (Pascarella & Terenzini, 2005; Roberts & McNeese, 2010). These are all factors that have a positive impact on the student’s overall personal development and learning experience (Gayles, 2009).

However, for student-athletes it is important to understand how their participation in intercollegiate athletics affects their personal and learning development in order to offset feelings of isolation (Rothschild-Checroune, Gravelle, Dawson, & Karlis, 2012; Watt & Moore, 2001). Components such as “academic performance, cognitive development, attitudes and values, and psychological development” (Gayles, 2009, p. 35) are some factors to examine when evaluating student-athlete involvement. Developing a better understanding might allow athletic departments to create more effective programs to involve student-athletes in other spheres of college life.

### Social Exchange Theory

Cropanzano and Mitchell (2005) identified social exchange theory to be an instrumental theoretical model in order to understand behavior within a workplace. In the formation of workplace relationships, this theory has gained tremendous attention (Shore et al., 2004). Even though there are various definitions of social exchange theory, they all involve a string of connections that create responsibilities (Emerson, 1976). Blau (1964) was one of the first scholars to describe social exchange theory, stating, “the voluntary actions of individuals
are motivated by the returns they are expected to bring from others with the exact nature of the return never specified in advance but… left to the discretion of the one who makes it” (p. 2). Social exchange theory, when experienced in specific workplaces, also leads to the establishment of interpersonal connections, which are described as social exchange relationships (Cropanzano, Byrne, Bobocel, & Rupp, 2001). A strong correlation exists between returning the benefits an individual receives and the likeliness of expressing friendliness and helpfulness toward the other person with whom they have formed a social exchange relationship (Masterson, Lewis, Goldman, & Taylor, 2000). Student-athletes are more likely to be committed to their teams and coaches when they experience a higher quality of a social exchange relationship (Czekanski & Turner, 2014). However, research has yet to investigate to what extent student-athletes’ relationships with academic advising personnel influence their overall college experience regarding involvement and emotional adjustment.

**Student-Athlete Academic Support Services**

The combination of athletics and academics has been deemed “American higher education’s peculiar institution” (Howard-Hamilton & Sina, 2001, p. 39). It is because of these challenges that several scholars identified student-athletes as a unique population that is different from the general student body (Jordan & Denson, 1990; Gaston-Gayles, 2003; Watt & Moore, 2001) and needs support in balancing academic requirements (Burns, Jasinski, Dunn, & Fletcher, 2013). Academic services started out as primarily responsible for maintaining student-athlete eligibility (Gerdy, 1997), which prompted some advisors to promote less strenuous courses for student-athletes. Eventual policies such as Proposition 48, which called for improved minimum standards for student-athletes coming into college, forced academic programs to evolve and provide services such as academic advisement, tutoring, and career planning (Gaston-Gayles, 2003). In addition, student services programs “have a responsibility to create the necessary climate of encouragement and support which is produced through services specifically for student-athletes” (Hollis, 2001, p. 271). Also, the NCAA requires each member institution to have services in academic advising and support available to their student-athletes (NCAA, 2017). Furthermore, athletic departments specifically hire academic advisors to work directly with student-athletes. Due to this more holistic approach to student-athlete academic services, scholars have focused on how variables such as satisfaction, involvement, and emotional adjustment affect the student-athletes college experience (Miller & Kerr, 2002; Pritchard & Wilson, 2003; Riener & Chelladurai, 1998), while the student-athlete’s perception also is needed (Navarro & Malvaso, 2016).

However, this type of academic support available to student-athletes also may create drawbacks. Feelings of isolation from the general student population and faculty may arise (Rothchild-Checrone et al., 2012; Watt & Moore, 2001). Additionally, student-athletes in revenue-producing sports demonstrated a certain level of dependency toward the usage of academic services to stay eligible (Ridpath, 2010), which might hinder the overall development of independency for student-athletes (Burns et al., 2013; Hardin & Pate, 2013).

**Academic advising.** Scholars suggested that student-athletes are generally advised in three main areas: time management, class scheduling, and academic tutoring (Broughton & Neyer, 2001; Shriberg & Brodzinski, 1984). Over the years, scholars indicated that student advising comes in various forms of advising used within a higher education setting including developmental and prescriptive advising (Jordan, 2000), and later intrusive advising (Gaston-Gayles, 2003). Developmental advising is defined as the personal relationship between student and an advisor, which includes academic, career, and personal goals, while prescriptive advising places an emphasis on any unique concerns that need to be attended to guarantee graduation (Jordan, 2000). Intrusive advising, however, relies upon advisors working with students in a reactionary way, working to solve any problems once they occur (Gaston-Gayles, 2003). Research suggests developmental advising was preferred amongst students when measuring their satisfaction with the advising style their advisor used (Hale, Graham, & Johnson, 2009). Therefore, scholars contend that athletic departments also should serve as life skills mentors. In order for student-athletes and athletic departments to benefit from these approaches, more time needs to be invested into these techniques that already are available (Broughton & Neyer, 2001; Hardin & Pate, 2013).

**Life skills.** Student-athletes are exposed to a rigorous timetable regarding their sport, leaving less available time to pursue their academic studies and other educational activities (Comeaux, 2013). For this reason, the NCAA created the NCAA Life Skills program, formerly known as CHAMPS/Life Skills (NCAA, 2016). The program was modeled after the “Total Person Project,” invented by Dr. Homer Rice in 1981 (McGlade, 1997), who believed a balanced life is the key to success. The program’s purpose is to help student-athletes holistically focus on the three core values of academic achievement, athletic success, and personal wellbeing for a successful future and is overseen by the National Association of Academic Advisors for Athletics (N4A) (NCAA, 2016). This approach also includes a focus on life after college and sport (Lally & Kerr, 2005), aiding in the preparation to transfer skills to real-world settings (Shurts & Shoffner, 2004). While academic services focus on life skills for the overall student experience, one way to measure this effectiveness is to examine student satisfaction.
Perception of academic services significantly impacts athlete involvement and academic outcomes, measuring how
examined four areas in relation to NCAA Division I student-their college experience (Umbach et al., 2006).
results indicated that student-athletes were more pleased with
that foster personal and learning development. Additionally,
claim that there were no significant differences amongst both
on data from the National Survey on Student Engagement to
athletes with the student body, Umbach et al. (2006) relied
academic career (Shulman, 2002). Yet, comparing student-
Kuh, & Klein, 2006). Students develop an open mind for
involvement amongst freshmen student-athletes.

**Student Satisfaction**

Satisfaction is a highly researched variable, not only
in job settings, but also in athletic organizations (Riemer &
student-athlete satisfaction as “a positive affective state resulting
from a complex evaluation of the structures, processes, and
outcomes associated with the athletic experience” (p. 135).
The NCAA’s mission statement underscores the importance of
student-athlete satisfaction, which is identified to be one of the
most vital experiences throughout their intercollegiate career
(Burns, Jasinski, Dunn, & Fletcher, 2012).

To measure perception of academic services available to
individuals: 196 student-athletes at a NCAA Division I institution
were surveyed (Huml et al., 2014). Student-athletes identified
visiting their athletic advisor was less desirable and identified
they would rather seek help from academic and faculty advisors
who keep academic goals as a priority. Moreover, the results
indicated time spent in the athletic academic center negatively
affected the student-athletes’ ability to connect with faculty,
participate in campus organization and community service,
and study. Furthermore, Huml et al. (2014) found there was
less satisfaction with the services offered through the athletic
department. It underlines what effects the separation of student-
athletes from the student body can have, which also is a point
of interest within Student Involvement Theory (Astin, 1984).
Within the intercollegiate athletics context, student-athlete
satisfaction also can be considered a valuable outcome of
programmatic effectiveness (Russell, 2015). Thus, the first
hypothesis is presented:

\[ H1: \text{Perception of academic services significantly impacts satisfaction amongst freshmen student-athletes.} \]

**Student Involvement**

Student involvement has been identified to be a good
indicator toward learning and personal development (Carini,
Kuh, & Klein, 2006). Students develop an open mind for
continuous learning and personal development through the
participation in educationally productive activities during their
academic career (Shulman, 2002). Yet, comparing student-
athletes with the student body, Umbach et al., (2006) relied
on data from the National Survey on Student Engagement to
claim that there were no significant differences amongst both
populations regarding their involvement in educational practices
that foster personal and learning development. Additionally,
results indicated that student-athletes were more pleased with
their college experience (Umbach et al., 2006).

However, a study conducted by Gayles and Hu (2009)
examined four areas in relation to NCAA Division I student-
athlete involvement and academic outcomes, measuring how
participation in these areas has an influence on academic
achievement. These four areas were described as “interactions
with faculty and non-athletes, participation in organizations
outside athletics, and academic-related activities.” (p. 320).
The results showed that through the engagement of student-
athletes in educationally purposeful activities, this population
experienced positive influences on their college experience in
comparison to non-student-athletes (Gayles & Hu, 2009). Newer
studies have obtained results that indicate how intercollegiate
participation leads to a higher satisfaction regarding the college
experience. Moreover, important concepts such as persistence,
degree completion motivation, and personal contribution toward
success also were mentioned (Pascarella, Edison, Hagedorn,
Nora, & Terenzini, 1996). Additionally, institutions need to
emphasize student involvement by shaping the academic,
interpersonal, and extracurricular offers provided because they
have a direct effect on one’s individual development, ultimately
affecting the college experience (Pascarella & Terenzini, 2005).
As such, the second hypothesis is stated as:

\[ H2: \text{Perception of academic services significantly impacts involvement amongst freshmen student-athletes.} \]

**Emotional Adjustment**

Research also suggests that another component of
the students’ college experience is emotional adjustment
(Melendez, 2006). Adjustment to college for student-athletes
requires having the ability to meet the complex and various
demands to attend a higher education institution (Baker &
Siryk, 1989). Zea, Jarama, and Bianchi (1995) defined this
as “remaining in college, enjoying psychological well-being,
and performing well academically” (p. 511). Student-athletes
might experience a higher complexity when adjusting to college
because of academic and athletic expectations placed upon them
(Papanikolaou, Nikolaidis, Patsiaouras, & Alexopoulos, 2003).

There are various reasons explaining why adjusting to
college can be related to non-academic problems (Kaczmarek,
Matlock, & Franco, 1990). For example, having financial
struggles, health issues, problems adapting to change, individual
difficulties, and facing loneliness can interfere with a student’s
adjustment to college life. However, Sellars and Damas (1996)
identified the positive impact of athletic participation on social
interaction and support, while participation in intercollegiate
athletics increased one’s attachment toward the university and
provided increased feelings of pride (Melendez, 1991). Athletic
participation also offers benefits such as developing leadership
and enhancing interpersonal skills (Ryan, 1989). For freshmen
student-athletes, the ability to have a social support system
created through the participation on athletic teams showed to be
important in the adaptation process of a major life change and
allowed for an easier adjustment (Miller & Kerr, 2002). Based on higher graduation rates of female student-athletes compared to male student-athletes and the general student body (NCAA, 2015), intercollegiate participation for females implies to have a more significant influence on their college adjustment.

Pritchard and Wilson (2003) identified emotional and social factors that ultimately were linked to attrition. Participants for this research were 218 undergraduate students at a private institution, examining “the relationship between student emotional and social health and academic success and retention” (p. 20). Therefore, the third hypothesis is introduced:

\[ H_3: \] Perception of academic services significantly impacts emotional adjustment amongst freshmen student-athletes.

Among the factors that influence emotional adjustment, subgroup differences such as race and gender can have an impact on how students adjust to college (Pritchard & Wilson, 2003). Within the context of student-athletes, another important subgroup difference could be operationalized on the basis of individual vs. team sports. In order to investigate this notion with freshmen student-athletes, the following hypothesis was added:

\[ H_4: \] Perception of academic services differs depending on various subgroups including race, gender, and team/individual sport designation amongst freshmen student-athletes.

**Methods**

**Participants and Procedure**

The concept of college adjustment is theorized to be most significant during the early years of college (Baker & Siryk, 1989). Therefore first-year student-athletes were the target population for participation from Division I institutions due to their established athletic academic services, addressing the purpose of this study. Utilizing a purposeful sampling method (Patton, 2015), a total of 72 institutions were identified from seven Division I conferences for participation in this study. Student-athlete academic services departments from this group were emailed to determine potential participation for this study. From this group, 15 schools declined to participate, eight indicated they would forward the survey to their freshmen student-athletes, and no response was received from the rest. Following guidelines outlined by the institutional review board (IRB), academic advisors assisted in distributing online surveys via email to first-year athletes during their second term at the institution. Within the eight institutions that agreed to participate in the study, there was a potential sample of 955 freshmen student-athletes. A total of 150 surveys were returned, representing an initial response rate of 15.7%. Of these responses, 47 surveys were deemed unusable due to incomplete responses, providing a useable sample of \( N = 103 \), which is included in Table 1. Compared to the general NCAA Division I population, the current study included a greater percentage of white student-athletes and female student-athletes than the general student-athlete population.

**Table 1. Survey Participants**

<table>
<thead>
<tr>
<th></th>
<th>Current Study</th>
<th>NCAA DI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>65 (63.1%)</td>
<td>47.0%</td>
</tr>
<tr>
<td>Male</td>
<td>38 (36.9%)</td>
<td>53.0%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>74 (71.8%)</td>
<td>57.1%</td>
</tr>
<tr>
<td>Black</td>
<td>20 (19.4%)</td>
<td>20.8%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>3 (2.9%)</td>
<td>2.2%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>3 (2.9%)</td>
<td>5.0%</td>
</tr>
<tr>
<td>Other</td>
<td>3 (2.9%)</td>
<td>14.90%</td>
</tr>
<tr>
<td>Subdivision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FBS</td>
<td>75 (72.8%)</td>
<td></td>
</tr>
<tr>
<td>FCS</td>
<td>28 (27.2%)</td>
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</tr>
<tr>
<td>Sport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team Sport</td>
<td>73 (70.9%)</td>
<td></td>
</tr>
<tr>
<td>Individual Sport</td>
<td>0 (29.1%)</td>
<td></td>
</tr>
</tbody>
</table>


**Instrumentation**

The survey instrument contained 41 items measuring perceptions of service quality, student satisfaction, student involvement, and emotional adjustment of study participants. All items were measured using a 7-point Likert type scale (1 = strongly disagree, 7 = strongly agree). Service quality items were adapted from the Scale of Service Quality for Intercollegiate Athletics (SSQIA), utilized by Ko, Durant, and Mangiantini (2008), The SSQIA contains four dimensions: program quality (PQ), outcome quality (OQ), interaction quality (IQ), and environment quality (EQ). This scale was selected in order to measure service perception according to student-athletes, who are the recipients of the academic services. Overall the scale indicated a CFA of 0.96 (Ko et al., 2008). Student satisfaction (SS) items were measured using items from Douglas, Douglas, and Barnes (2006), student involvement (SI) items were adapted from Carini et al. (2006), and emotional adjustment (EA) items were adapted from Baker and Siryk (1989). Internal consistency reliability for the entire scale from Baker and Siryk (1989) has been reported ranging from 0.89 to 0.95, while
internal consistency reliability ranged from 0.73 to 0.91 for the subscales, of which emotional adjustment is a part. All item factor loadings and scale reliability scores from the current study were acceptable (Table 2) following guidelines outlined by Hair, Black, Babin, and Anderson (2009).

Table 2. Means, Standard Deviations, and Inter-Item correlations

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>α</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PQ</td>
<td>5.61</td>
<td>1.33</td>
<td>0.958</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>2. OC</td>
<td>5.64</td>
<td>1.40</td>
<td>0.960</td>
<td>0.880**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. IQ</td>
<td>5.75</td>
<td>1.41</td>
<td>0.942</td>
<td>0.841** 0.874**</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4. EQ</td>
<td>5.67</td>
<td>1.39</td>
<td>0.938</td>
<td>0.862** 0.873** 0.879**</td>
<td>---</td>
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<tr>
<td>5. SS</td>
<td>5.85</td>
<td>1.41</td>
<td>0.983</td>
<td>0.848** 0.878** 0.903** 0.903**</td>
<td>---</td>
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<td></td>
</tr>
<tr>
<td>6. SI</td>
<td>5.78</td>
<td>1.38</td>
<td>0.970</td>
<td>0.880** 0.890** 0.892** 0.891** 0.946**</td>
<td>---</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. EA</td>
<td>5.76</td>
<td>1.35</td>
<td>0.955</td>
<td>0.873** 0.873** 0.882** 0.878** 0.907** 0.931**</td>
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</table>

** Correlation is significant at the 0.01 level (2-tailed).

PQ=program quality; OQ=outcome quality; IQ=interaction quality; EQ=environmental quality; SS=student satisfaction; SI=student involvement; EA=emotional adjustment

Table 2 illustrates scales means and standard deviations as well as correlations between measures. High correlations between independent variables in the model raised concerns of multicollinearity, which can inflate R2 values of the model. Multicollinearity also can create concerns that independent variables are indistinguishable, deflating significance of individual predictors (Mansfield & Helms, 1982; O’Brien, 2007). Multicollinearity was checked by examining variance inflation factors (VIF) of each variable. All VIF values were acceptable (PQ = 5.364; OQ = 6.567; IQ 5.680; EQ = 6.044) per Hair et al. (2009) guidelines (VIF < 10). The VIF values also fell within acceptable limits outlined by O’Brien (2007) who noted that VIF values are often inflated by small samples (n < 200). O’Brien (2007) also reasoned that multicollinearity is less of a concern when using previously validated independent constructs. Given that the SSQIA (Ko et al., 2008) meets this standard, we moved forward with our assessment of the data.

Analysis

In order to effectively understand the influences that student-athlete academic support services have on the various aspects of the student-athlete experience, the current study utilized a model that predicted perceptions of service quality dimensions would significantly affect student-athletes’ perceptions of satisfaction, involvement, and emotional adjustment. Multiple linear regression was employed to test hypotheses 1 – 3, which predicated perceptions of service quality would predict outcome variables. Given the size of the sample in the current study, multiple linear regression is more appropriate than more advanced statistical methods that are more sensitive to sample size. H4 predicted perceptions of service quality would differ among demographic subgroups in the sample. Independent samples t-tests were used to test for differences between groups.

Results

Linear multiple regression results are presented in Table 3. H1 predicted perceptions of service quality would predict satisfaction amongst student-athletes in the sample. H1 was partially supported. IQ and EQ were significant predictors of SS, but PQ and OQ were not significant. H2 predicted service quality dimensions would predict levels of student involvement for student-athletes in the sample. H2 was mostly supported. PQ, IQ, and EQ were all found to significantly predict SI. Only OQ was not significantly related to SI. H3 mostly was supported. PQ, IQ, and EQ were all significant predictors of EA, however OQ was not a significant predictor. Overall, the model explained approximately 88% of the variance in satisfaction, 90% of the variance in student involvement, and 85% of the variance in emotional adjustment.

Table 3. Multiple Linear Regression Results

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>SI</th>
<th>EA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SE</td>
<td>b</td>
<td>SE</td>
</tr>
<tr>
<td>Program Quality</td>
<td>0.087</td>
<td>0.069</td>
<td>0.079</td>
</tr>
<tr>
<td>Outcome Quality</td>
<td>0.091</td>
<td>0.168</td>
<td>0.082</td>
</tr>
<tr>
<td>Interaction Quality</td>
<td>0.084</td>
<td>0.373**</td>
<td>0.076</td>
</tr>
<tr>
<td>Environment Quality</td>
<td>0.088</td>
<td>0.370**</td>
<td>0.079</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>F</th>
<th>173.92**</th>
<th>209.45**</th>
<th>142.59**</th>
</tr>
</thead>
</table>

Adjusted R² | 0.871 | 0.891 | 0.847 |

*p ≤ .05

**p ≤ .01

H4 predicted perceptions of service quality dimensions would be affected by membership in subgroups contained within the sample. Female student-athletes had significantly higher
perceptions of OQ (t = -2.099, p = .038) and EQ (t = -2.226, p = .028) than their male counterparts, however no differences in PQ (t = -1.413, p = .161) or IQ (t = -1.833, p = .070) were revealed. Non-white student-athletes were grouped to control for the small number of survey participants that identified as Hispanic/Latino, Asian/Pacific Islander, and other. No significant differences were found between white and non-white student-athletes (PQ, t = -2.57, p = .798, OQ, t = -6.73, p = .503; IQ, t = -1.89, p = .850; EQ, t = .029, p = .977). In regard to sport type and NCAA classification, independent sample t-tests did reveal that team sport student-athletes reported significantly higher perceptions of IQ than student-athletes competing in individual sports (t = -2.113, p = .037). No other significant differences were present between team sport and individual sport student-athletes with regard to perceptions of service quality components or outcome variables. Similarly, mean averages for perceptions of service quality and outcome variables were not significantly different for student-athletes competing in different NCAA classifications. These results partially support H4, which predicted perceptions of service quality dimensions would be significantly different between groups based on race, gender, sport type, and NCAA classification. None of the dependent variables were significantly influenced by race (SS, t = .099, p = .922; SI, t = -1.166, t = .868; EA, t = .214, p = .831) or gender (SS, t = -1.615, p = .110; SI, t = -1.084, p = .281; EA, t = -1.769, p = .080).

Discussion

The purpose of this study was to examine the perception freshmen student-athletes have regarding how their university’s athletic department academic services affect their satisfaction, involvement, and emotional adjustment to college. Examining these relationships through the lens of Student Involvement Theory (e.g., Astin, 1999) and social exchange theory (e.g., Cropanzano & Mitchell, 2005), the present findings provide some further explanation to the uniqueness of the student-athlete experience. Prior research has established that higher levels of involvement come through participation in meaningful activities, such as student-athlete focused study halls and participation in NCAA Life Skills programs. Additionally, levels of satisfaction received through social exchange from the student-athlete’s academic services environment was examined. Findings from the present study indicate there is support for these relationships.

It was hypothesized that freshmen student-athletes’ perceptions of academic services significantly impact 1) satisfaction, 2) involvement, and 3) emotional adjustment. It also was hypothesized that freshmen student-athletes’ perception was different based on race, gender, and individual/team sport. The results of this study provide support for each of the first three hypotheses. Because race did not reach significance in predicting perceptions of overall academic services, hypotheses 4 was partially supported due to the presence of a significant influence based on team/individual sport designation. However, team/individual sport reported higher significant levels regarding interaction quality. Based on the scale used in this study to measure service quality from freshmen student-athlete’s perceptions, the researchers were able to identify which of the four dimensions had a significant influence on satisfaction, involvement, and emotional adjustment. Each hypothesis will be discussed further, while identifying which dimension significantly influenced the various areas.

The findings that freshmen students-athletes’ perception regarding academic services affected their satisfaction, involvement, and emotional adjustment may be attributed to several factors. First, through student involvement, one may increase personal and learning development when participating in meaningful activities throughout an academic career, which ultimately leads to higher levels of satisfaction (Astin, 1999; Umbach et al., 2006).

Perceptions of interaction quality and environment quality were found to significantly influence freshmen student-athletes’ satisfaction. Forming relationships with athletic advisors creates feelings of comfortability, especially as a first-year student-athlete, due to their impact on overall development (Jackson et al., 2017). Also, environment plays a crucial role when evaluating academic services. This supports the same findings from a previous study (Hazzaa et al., 2018). Having freshmen student-athletes evaluate their perception of the offered academic services to significantly influence their overall satisfaction demonstrates the importance of having services available. Feelings of support and encouragement are at the forefront of those services. This has been supported in previous findings, underlining that satisfaction is a crucial factor in the student-athlete’s overall experience (Burns et al., 2012).

Secondly, academic services were found to significantly impact involvement amongst freshmen student-athletes. Out of the four dimensions, once again, interaction quality and environment quality demonstrated to significantly affect academic services. Interactions with people outside sport-related activities proved to positively impact the overall college experience (Gayles & Hu, 2009). Academic services need to continuously encourage student-athletes to form outside relationships that are not only pertained to their sport (Gerdy, 1997). Since freshmen student-athletes participated in the study during their first or second semester, the new environment, exposure to new schedules, classes, teammates, faculty members, and routines offer an explanation as to why academic services are needed to emphasize that push to go out.

Thirdly, emotional adjustment showed to be significantly influenced by the perceptions of the dimensions for program and interaction quality. Program quality may be attributed to heightened complexities and requirements placed upon
student-athletes to meet academic and athletic expectations (Papanikolaou et al., 2003). Therefore, it explains why interaction quality also significantly impacts emotional adjustment as freshmen student-athletes seek help from academic services to adjust to those demands. Including social support structures for student-athletes may contribute to emotional adjustment, in which case some universities now have counselors specifically trained to work with student-athletes (Melendez, 2006). A more recent study found that participation in either an individual or a team sport influenced one’s emotional adjustment (Czekanski & Turner, 2014). Moreover, it demonstrated the importance of quality interaction between teammates that also would ultimately influence one’s role on a team. Similarities can be drawn toward academic services. Previous findings revealed that a positive relationship exists between student-athlete’s emotional health and academic success (Pritchard & Wilson, 2003).

Lastly, the fourth hypothesis investigated if overall perceptions of academic services differed based on various subgroups such as race, gender, and team/individual sport. Overall, female student-athletes reported higher perceptions of overall outcome and environment quality compared to their counter partners. The higher scores on those dimensions demonstrated that female student-athletes exhibited higher degrees of placing importance on educational goals and how it affects their outcome quality. As found in various studies, female student-athletes usually perform at higher academic rates compared to male student-athletes (Melendez, 2006; Simons, Van Rheenen, & Covington, 1999), indicating a heightened educational focus and attributing thoughts toward one’s future. Additionally, higher scores on the environment quality dimension indicated that female student-athletes take into consideration how the athletic department as a whole influences their experience.

Team student-athletes had higher levels of agreeableness, whereas individual student-athletes had higher scores in autonomy (Nia & Besharat, 2010). Therefore, student-athletes participating in individual sport are used to doing more work autonomously. The findings of this study are not surprising, as team sport student-athletes reported significantly higher perceptions of interaction quality than student-athletes competing in individual sports. Race was found to not have a significant influence. Similarly, previous studies found race had no significant influence on college adjustment (Kaczmarek et al., 1990; Melendez, 2006), which also was found in this study amongst perceptions of academic services.

Outcome quality as part of one of the four service quality dimensions was not found to significantly influence satisfaction, student involvement, or emotional adjustment. Reasons could be attributed to the fact that the study involved freshmen student-athletes who had just started their intercollegiate experience and were not yet thinking about their overall outcome experience.

Limitations and Future Directions

While the present study contributes to the overall knowledge regarding how the perception of athletic academic services affect the overall college experience of freshmen student-athletes, there are some limitations that do not allow the results to be generalized. One major limitation for this study stems from using the purposeful sampling method in order to obtain responses. Due to the low response rate of 15.7%, which in turn resulted in potential issues caused by multicollinearity, a more widespread study with additional student-athlete responses would be useful. The sample included a higher representation of female (63.1%) than male student-athletes (36.9%). Also, more surveys from FBS schools (72.8%) than from FCS schools (27.2%) were part of this study. Finally, this study relied on self-report measures.

Additionally, future research could examine other aspects of student-athlete perceptions of service quality based on different subgroups (e.g., perceptions from classifications of freshman, sophomore, juniors, and seniors) and of those coming from other universities, either as junior college transfers or graduate transfers. It also would be relevant to explore other outcomes related to student-athlete support services, such as impacts on academic learning needs (Antshel, VanderDrift, & Pauline, 2016). Also, given the increasing number of international student-athletes, future research could also compare their perceptions to those of the domestic population. Another avenue to be explored might be the different perception of public versus private institutions, while also taking into consideration the different academic structures athletic departments offer to their student-athletes.

Implications

The current paper explores the research gap of how freshmen student-athletes’ perception of academic support services influences their satisfaction, involvement, and emotional adjustment to collegiate life. The role of an athletic advisor is to assist student-athletes to develop and reach personal and learning goals, which simultaneously affect their overall college experience (Fletcher, Benshoff, & Richburg, 2003; Jackson et al., 2017; Melendez, 2006).

Given the findings that freshmen student-athletes reported their perceptions significantly influenced their satisfaction, involvement, and emotional adjustment, the current services set in place may need to be reevaluated. With the intensification of eligibility requirements from the NCAA, athletic departments are pressured to increase their student-athlete academic success. Findings from this study will allow for athletic departments to adjust their academic support services based on how freshmen
student-athletes perceive their helpfulness and make any enhancements or modifications. Additionally, the NCAA can reevaluate and modify the rules set in place to further support student-athletes. Furthermore, providing dimensions of service quality is important for student-athletes because other areas in their lives are affected based on this service. Student-athletes will benefit from these results to develop a better understanding of the purpose of academic support services. Moreover, this study showed that academic services do have an impact on the student-athlete, intending to promote a positive overall college experience. Given that participants in this study were freshmen student-athletes demonstrates the importance of having those services available from the beginning of their academic career.

**Conclusion**

Findings from the current study add to the literature, but also leave areas to be further investigated. Since more money has been invested into improving athletic venues, athletic departments also demonstrated their increased interest in focusing on providing services for student-athletes (Huml, Pifer, Towle, & Rode, 2018; Wolverton et al., 2008). Academic advisors and counselors play an important role regarding a student-athlete’s overall experience (Fletcher et al., 2003; Kamusoko & Pemberton, 2013). Perceptions of academic services do matter for freshmen student-athlete’s overall satisfaction, involvement, and emotional adjustment to collegiate life.

Athletic departments may use the SSQIA in order to explore how different groups perceive available academic services, which would result in the possibility to reevaluate them (Ko et al., 2008). Using the SSQIA might allow athletic departments to direct future efforts toward continued enhancement of the student-athlete quality and overall college experience (Ko et al., 2008). Also, there may be other contributors outside the academic services provided that influence the student-athlete’s perceptions of those offered services. For example, team members, athletic identity, family support, or culture also may be more closely examined as to how they influence the student-athlete’s overall perception of their collegiate experience.

**References**


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