# WHAT FACTORS PREDICT GRADUATION IN BRITISH BASKETBALL PLAYERS WHO MIGRATE TO PLAY COLLEGE BASKETBALL IN THE UNITED STATES?

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### **ABSTRACT**

Rumors surfacing throughout the British basketball community indicate that around three-quarters of British basketball players fail to graduate from their first US institution. Therefore, the purpose of the study was to quantify the significance of the British basketball player graduation problem and to identify influencing predictors. Based on previous research on domestic student-athlete graduation, four predictors were identified (Coach Satisfaction, Academic Preparedness, Professional Opportunities and Aspirations, and Athletic Financial Support). A graduation predictor questionnaire was completed by British basketball players that had either graduated or left their initial US institution. A logistical regression design was utilized to determine the influence of the predictors on British basketball player graduation rates. 43.6% of the participants had failed to graduate, and the model proposed failed to predict graduation in British basketball players. Therefore, the predictors formally associated with graduation may fail to have the same effect on international student-athletes.

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#### Introduction

The graduation rates of student-athletes are often scrutinized and studied due to the significance of the population on a college campus, and their impact on the wider campus and local community. These individuals are in a unique situation compared to others within the student-body due to their dual role. Multiple sources have suggested that student-athletes graduate at a higher rate than their undergraduate equivalents (Hosick, 2018; Schurr, Wittig, Ruble, & Henriksen, 1993). However, others have suggested that student-athletes in revenue-generating sports are at a heightened risk of retention issues, and subsequent failure to graduate (Eckard, 2010; Kane, Leo, & Holleran, 2008; Radcliffe, Huesman, & Kellogg, 2006). Much of this research has focused on domestic student-athletes, with very little attention paid to the international student-athlete population. International student-athletes are an ever-growing population within the collegiate sport industry, with coaches often searching overseas in order to stay competitive within such a highly-competitive market (Hosick, 2010; Ridinger & Pastore, 2001). Researchers have implied that international student-athletes frequently thrive in academic situations at United States (US) colleges (Kane et al., 2008; Popp, Hums, & Greenwell, 2009). Despite that, the population remains one of the most at-risk subgroups for retention issues (Radcliffe et al., 2006; Turner, 2018).

One unique subgroup within the international student-athlete population is British basketball players. The United Kingdom (UK) frequently sends its best basketball players to US colleges, with them often bypassing the opportunity to stay and compete within the UK's university sports systems. This unique group is currently the sixth and seventh most represented nation in National Collegiate Athletic Association (NCAA) Division I

(NCAA DI) and Division II (NCAA DII) basketball (NCAA, n.d.). This statistic does not even consider those who decide to commit to NCAA Division III (NCAA DIII), National Junior College Athletic Association (NJCAA), and National Association of Intercollegiate Athletics (NAIA) institutions. Despite these frequent transatlantic migration patterns, there is no research in place investigating any areas related to them as a group. One of the significant concerns with this population is their potential inability to complete their initial intended area of study on arrival to the US. It has been rumored that up to three-quarters of British basketball players fail to graduate from the school that initially recruited them. Instead they choose to transfer to another US institution, seek out professional opportunities, or return to their homeland. Such issues represent a problem for US institution graduation and retention rates, as well as a potential disruption in the individual's athletic and academic development. Therefore, the problem of this study is to better understand what contributing factors predict the graduation rates of British basketball players. Furthermore, it aims to address the problem related to the rumored figures and determine whether this group is at such a significant risk of failure to graduate.

#### **Definitions**

**Academic Preparedness**: The rubric which is being measured that determines whether an individual is academically ready to achieve in post-secondary education. This is often determined through SAT, ACT, or GPA scores. For the purpose of this study, we will use A-Level or BTEC equivalent results as the majority of participants would have come from British institutions.

**Athletic Financial Support**: The athletic scholarship given to the athlete by the athletic department in order to fund their undergraduate studies. For the purpose of this study, this is going to be determined on three levels.

**Full Athletic Scholarship**: Covers full tuition and fees, room, board, and course-related books.

**No Athletic Scholarship**: No money given to cover tuition and fees, board, and course-related books.

**Partial Athletic Scholarship**: Covers a portion of tuition and fees, board, and course-related books, but some of these costs are paid for by the athlete or a secondary source.

**Aspirations**: Their willingness to pursue paid professional opportunities within basketball while in their freshman year of college.

**Coach Satisfaction**: How satisfied the athlete was with their first college coach's training and instruction, personal treatment, strategy, and ability utilization.

**Ability Utilization**: Satisfaction with how the coach uses and/or maximizes the individual athlete's talents and/or abilities.

**Personal Treatment**: Satisfaction with those coaching behaviors which directly affect the individual, yet indirectly affect team development. It includes social support and positive feedback.

**Strategy**: Satisfaction with the strategic and tactical decisions made by the coach. **Training and Instruction**: Satisfaction with the training and instruction provided by the coach.

**Graduation**: Graduating from their first US institution intended course of study. In four-year colleges, this will be determined by whether they graduated within a six-year timeframe from initial entry into that institution. For two-year colleges, this will be determined by whether they graduated within a four-year timeframe from initial entry into that institution.

**Opportunities**: The level of perceived realism in pursuing paid professional basketball opportunities while in their freshman year of college.

#### **Literature Review**

Graduation rates are often used as a metric to determine the effectiveness of colleges across the US (Bailey, Jenkins, & Leinbach, 2005). Likewise, the academic accountability and national rankings of those higher education institutions are generally determined by their graduation and retention rates (Field, 2006; Mangold, Bean, & Adams, 2003). The graduation metric has been used to predict graduation based on demographic characteristics of college students, while also investigating predictors related to the structure of the university itself (Bailey, Calcagno, Jenkins, Leinbach, & Kienzl, 2006; Scott, Bailey, & Kienzl, 2006). Graduating within a six-year time frame from initial entry is often used as the benchmark in determining the graduation rates of college students (Schurr et al., 1993; Scott et al., 2006). Furthermore, the literature suggests that retention and academic scorings, both past and present, are potential predictors of an individual's chances of graduation (Radcliffe et al., 2006). Retention rates are also regularly associated with graduation rates due to their ability to predict a student's academic persistence (Terry, Macy, Cooley, & Peterson, 2014).

In a collegiate sport context, graduation rates are a means of comparing NCAA student-athletes amongst their fellow non-athlete peers (Rishe, 2008). The NCAA has frequently emphasized the notion of athletes remaining as amateurs, and the prioritization of academics over athletics (Cooper, Wright, & Fulton, 2015). Furthermore, graduating its athletes has often been used as a benchmark for success by the NCAA, and other success factors that are unique to the student-athlete experience are viewed secondary (Eckard, 2010). These values are acknowledged on the NCAA website, where it is suggested that the organization's ultimate goal is to graduate student-athletes from their intended course of study (NCAA, n.d.). Therefore, student-athlete graduation rates are closely tracked by the NCAA in order to monitor the success of athlete graduation (NCAA, n.d.). The NCAA closely monitors student-athlete graduation rates by tracking athletes from their first year of college and then investigating if they graduated within six years regardless of whether they transferred (NCAA, n.d.). This tracking mechanism differs slightly with the level of competition the athlete participates at. If an athlete competes at the NCAA DI level, their graduation rates are only monitored if they receive athletic financial aid (NCAA, n.d.). Therefore, this does not take into consideration walk-ons or those that receive no athletic financial aid. At NCAA DII, the academic success rates of student-athletes are monitored regardless of financial support, and at NCAA DIII, no such reporting requirements are in place, although athletic departments are encouraged to report if possible (NCAA, n.d.). At the non-NCAA levels of collegiate sport, no NJCAA or NAIA graduation rates are currently reported.

According to the most recent NCAA DI Graduation Rates Report, 87% of its student-athletes, who entered their respective colleges as freshmen in the 2011-2012

academic year, graduated within six years (NCAA, n.d.). Likewise, student-athletes may graduate at a slightly higher rate than the general student body, with African-American student-athletes graduating at a significantly higher rate than their non-athlete equivalents (Hosick, 2018; Hosick & Durham, 2017). Furthermore, the NCAA boasts that student-athlete graduation rates are currently at an all-time high (Hosick, 2018). Despite these findings, there is still some concern over the trustworthiness of these reports, particularly when it comes to the comparison of student-athletes with the general student population.

The research tends to support evidence that student-athletes graduate at a higher rate than their undergraduate counterparts, and trends demonstrate an overall increase in student-athlete graduation rates over time. Research before the introduction of heightened NCAA eligibility requirements, Academic Progress Rate (APR) development, and graduation tracking mechanisms demonstrates the decline of student-athlete graduation rates before the introduction of such legislation. Longitudinal research from Shapiro (1984) provided evidence that the graduation rates of student-athletes at Michigan State University slowly declined over three decades from the 1950s to the 1980s. This was attributed to the ever-growing exposure and revenue-generation of collegiate sport. Shapiro (1984) posits that the NCAA recognized these negative trends and implemented several mechanisms which helped to address the problems. In 1983, the NCAA introduced proposition 48, which required NCAA athletes to achieve a minimum of a 2.0 high-school grade-point average (GPA) before gaining enrollment onto a collegiate program as a student-athlete (Brown, 2014). Furthermore, it was not until 1990 when the NCAA issued such legislation requiring NCAA members to report graduation rates (Brown, 2014). The APR was then introduced in 2004 to hold institutions

accountable for student-athlete academics through the monitoring of eligibility and retention standards (NCAA, n.d.). Most recently in 2016, the NCAA modified proposition 48 eligibility requirements and set a 2.3 high-school GPA benchmark for first-year athletes (Coakley, 2017). These requirements must be attained through the completion of 16 core classes, with 10 of them being completed before their senior year of high school (Coakley, 2017). Furthermore, aspiring student-athletes must have graduated from high school and have an SAT score of 900 or an ACT score of 75 (Coakley, 2017). Since these mechanisms were put into place, academic research on the graduation rates of studentathletes has increased. Earlier research from Long and Caudill (1991) revealed that collegiate athletic participation was likely to increase an individual's probability of graduation regardless of gender. This finding was supported in other research which suggested that there was a positive relationship between sport involvement and graduation rates (Schurr et al., 1993). Most interestingly, sport involvement was found to positively impact the graduation rates of not only student-athletes but those that consumed it as well (Schurr et al., 1993).

Rishe (2008) further examined this theory and suggested that student-athletes graduate at a significantly higher rate than non-athletes. Kane et al. (2008) found that student-athletes graduate at a higher rate than non-student-athletes over a six-year timeframe; however, this was not the case when comparing graduation rates of the two groups over just four years. Likewise, Ferris, Finster, and McDonald (2004) suggested that selective universities tended to graduate student-athletes at a higher rate than colleges with lower entry requirements; however, despite this, student-athletes still graduated at a lower rate than their undergraduate peers. Eckard (2010) made an interesting finding

concerning the reporting of student-athlete graduation rates by the NCAA. He suggested that student-athlete graduation rates were bias as they compared athletes to the whole student body. It was implied that the comparison did not take into consideration a large number of part-time students within the general student-body population. These students may have significantly influenced any graduation rate comparisons because they frequently took longer than the six-year benchmark provided in order to achieve degree attainment. Eckard's findings demonstrated that when the part-time bias was removed, the graduation rates of student-athletes were in fact lower than the undergraduate population.

There are some differences reported when graduation rates take into consideration the type of sport played by an athlete, their gender, and their race. Multiple researchers have suggested that revenue-generating sports, such as men's basketball and football, produce significantly lower graduation rates compared to other sports and compared to the general student-body (Eckard, 2010; Kane et al., 2008; Radcliffe et al., 2006). In regards to gender, women are regarded as the pioneers of student-athletic academics due to their vastly superior graduation rates compared with all other subgroups regardless of athletic participation (Kane et al., 2008; Lapchick, 2019; Rishe, 2008). The same could not be said for male student-athletes, who showed no difference between themselves and their undergraduate male equivalents (Rishe, 2008).

Some differences exist amongst academics concerning the reporting of findings regarding race. Rishe (2008) found that African-American male student-athletes graduated at a 15% higher rate than their equivalent undergraduates. In contrast, Kane et al. (2008) suggested that African-Americans have the lowest graduation rates of all student-athletes, and therefore need greater academic support. More recently, Lapchick (2019) suggested

that race was a significant contributing factor towards a continuing academic issue within collegiate sport, and higher education as a whole. Findings from the most recent TIDES report concerning collegiate basketball players reported a difference of 13% in graduation success rates between African-American and white males in favor of the latter (Lapchick, 2019). The findings for women were slightly better, but still demonstrated a 5% difference between white and African-American women basketball players (Lapchick, 2019). Furthermore, Gaston-Gayles (2004) identified ethnicity as a strong predictor of academic motivation and subsequently, their ability to achieve degree attainment. An example of such motivation factors has been seen with African-American student-athletes who strongly identify with both their athletic and racial identities (Bimper, Harrison, & Clark, 2013). These African-American student-athletes defined themselves around these salient identities with little attention paid to perceived less important aspects which included academia (Bimper et al., 2013).

#### **Predictors of Graduation**

The research has identified four key potential predictors of graduation which apply to the student-athlete population. These are as follows: their academic preparedness, the coach-athlete relationship and the factors under the coach's control, the financial aid support received, and their aspirations and opportunities to compete at the professional level of their sport. The next section of the literature review will investigate literature specific to these four predictors of student-athlete graduation.

#### **Academic Preparedness**

Academic preparedness has been defined as the ability to measure collegereadiness (Barnes, Slate, & Rojas-LeBouef, 2010). Over time, accountability measures and standardized test scores have been put into place to determine the academic preparedness of college-bound students (Barnes et al., 2010). Colleges will often use these as a metric to determine whether a student is academically ready for the course-load increase in which post-secondary education presents (Zwick & Sklar, 2005). These measurements of high school academic success have been suggested to be a good indicator of academic preparedness for students (Barnes et al., 2010; Weiss & Robinson, 2013). High school GPA in particular has been determined as a significant predictor of college graduation rates (Zwick & Sklar, 2005).

Student-athletes are a unique subgroup when it comes to academic preparedness, and much research has focused on them in terms of the challenges they face. Student-athletes, at most levels of collegiate competition, are enrolled in colleges due to their athletic prowess rather than their academic acumen, and given preferential treatment in the admissions process despite a lack of academic preparedness (Noll, 1999; Shulman & Bowen, 2001). The current pathway to most professional sports leagues in American society has required athletes to take the academic route to pursue their aspirations at the highest level of competition (Chalip, Johnson, & Stachura, 1996). Therefore making the US unique in its sporting pathways with academics and athletics closely intertwined (Chalip et al., 1996; Coakley, 2017; Woods, 2016). In comparison, most other countries utilize a club-based system, which are funded by governing bodies, with academics and athletics often separated (Chalip et al., 1996; Coakley, 2017; Woods, 2016).

The current US pathway is then designed to ensure that only those that are academically prepared can pursue careers in sport. The NCAA has tried to ensure that only student-athletes who are academically prepared compete at the college-level by

introducing Proposition 48. However, some suggest that this has restricted, marginalized, and discriminated against some talented athletes, particularly minorities, from pursuing athletic careers, and has led to cases of academic scandal (Davis, 1995; Hosick & Sproull, 2012; Hunt, 1999; Price, 2010). Furthermore, others have suggested that proposition 48 is an invalid predictor of academic success, and therefore should not be utilized (Baumann & Henschen, 1986). The most recent introduction of increased and modified eligibility requirements in 2016 was designed to send a message to high school athletes that academic achievement is essential in order to gain a scholarship in collegiate sport (Coakley, 2017). This increase in eligibility standards has been somewhat successful in ensuring that student-athletes achieve academic success in college, but the lack of a "legitimate" academic culture in big-time collegiate sports programs is significantly harder to change (Coakley, 2017).

Once enrolled in college, student-athletes often struggle with the academic demands in place while there (Adler & Adler, 1985). Many academics have investigated the difficulties in place when it comes to balancing their rigorous athletic schedules and challenging academic coursework (Adler & Adler, 1985; Simiyu, 2010). It has been suggested that the rigorous demands of collegiate sport require that athletes focus their efforts on honing their athletic skills at the expense of academics (Adler & Adler, 1987). Furthermore, student-athletes will often cluster together and enroll in easier classes to maintain their eligibility and to focus on their athletic schedules (Sanders & Hildenbrand, 2010). A study by Adler and Adler (1985) found that the professionalization of collegiate sport meant that athletes often felt obliged to prioritize athletics over any potential academic achievements. Furthermore, this primary focus on athletic achievements meant

that student-athletes should instead be referenced to as athlete-students, due to their athletic identity completely overriding that of their student one (Adler & Adler, 1985). The same study suggested that student-athletes join colleges with an idealistic view of their academic abilities, and fail to anticipate the increase in workload associated with undergraduate degree attainment (Adler & Adler, 1985). Once this initial honeymoon period was over, idealism turned to bitterness and a blame culture was then developed due to their academic failure (Adler & Adler, 1985). It has also been suggested that athletic programs tend to be a distraction for many student-athletes in their academic pursuit (Bowen & Levin, 2003). A study from Simiyu (2010) offered similar findings, where student-athletes faced unique challenges with their academics due to time constraints and fatigue. It was suggested that student-athletes should be supported academically by faculty in their initial stages after entering post-secondary education, so that they can adequately prepare themselves to tackle college-level coursework and learn how to balance both schedules (Simiyu, 2010). Despite the challenges they face with academic preparedness, there is no evidence to suggest that athletes are less ambitious or devote less time to their academic studies (Aries, McCarthy, Salovey, & Banaji, 2004). In fact, athletes have been known to apply themselves more frequently to their academic studies compared to other students due to the support structures in place that help to facilitate their academic success (Umbach, Palmer, Kuh, & Hannah, 2006).

This failure to prepare academically for college education could potentially lead to athletes dropping out, being declared ineligible, or academically dismissed. Failure to be retained at college often leads to a failure in graduation (Radcliffe et al., 2006). In fact, one of the most powerful predictors of retention rates for student-athletes is known to be a

lack of academic preparation for college-level work (Radcliffe et al., 2006). Weiss & Robinson (2013) suggested that dropout was not necessarily a byproduct of problems with academics, but instead a combination of other factors. However, other research has suggested that educational background and academic preparedness is directly linked to student-athlete retention (Sinnott, 2019).

A subgroup we know very little about in terms of graduation and retention rates are international student-athletes. The evidence seems to suggest that international student-athletes are academically prepared for college-level coursework, but also at a significant risk of failing to be retained (Popp, Love, Kim, & Hums, 2010; Radcliffe et al., 2006). The research from Radcliffe et al. (2006) and Sinnott (2019) has also linked academic unpreparedness to retention issues and subsequent graduation failure in student-athletes. Therefore, a lack of academic preparedness is likely to be a factor impacting the retention and graduation rates of international student-athletes as well.

#### **Coach-Athlete Relationship Satisfaction**

Scholars recognize that leaders can have an influential or detrimental effect on the people under their care (Subašić, Reynolds, Turner, Veenstra, & Haslam, 2011). In a sporting context, one of the most influential leaders in an athlete's career is their coach. Coach leadership has been defined as the coach's ability to influence an individual, or group of individuals, through their behavioral processes towards achieving performance success (Chelladurai & Riemer, 1998). This two-way interaction between the coach and their athlete forms a relationship which is often referred to as the coach-athlete relationship (Jowett & Chaundy, 2004). The relationship experienced between an athlete and a coach is usually one of the most important for an athlete, as their coach can impact

their training regiment, performance outcomes, certain aspects of their private lives, and overall athletic development (Coakley, 2017; Jowett & Cockerill, 2003).

In a collegiate sport context, the coach-athlete relationship can forge a significant bond between the pair as it is developed and maintained over a potential four-year timeframe (Lavoi, 2007). This relationship begins to develop in the recruitment stage, and is recognized as one of the most influential factors in an athlete's decision to attend a certain institution (Goss, Jubenville, & Orejan, 2006). The relationship then has the ability to either intensify or diminish based on situations that occur throughout the athlete's playing career.

There is a significant amount of research related to the coach-athlete relationship and how it impacts athletes (Hodge & Lonsdale, 2011; Horne & Carron, 1985; Kenow & Williams, 1999). Much of that research focuses on an athlete's preferences of coaching styles, and the impact that coaching can have on actions (Hampson & Jowett, 2014; Hodge & Lonsdale, 2011; Turman, 2008). Turman (2008) suggested that athletes seemed to prefer more prosocial coaching behaviors, which allowed them to have a greater perceived involvement over the decision-making process. Furthermore, personally supportive coaches were linked to higher satisfaction levels amongst athletes as well as heightened collective efficacy within the group (Hampson & Jowett, 2014). This supportive coaching style was linked to the development of prosocial behaviors amongst their athletes (Hodge & Lonsdale, 2011). It was implied that the less controlling a coach was, the less likely athletes were to be involved in antisocial behaviors while participating in their sport (Hodge & Lonsdale, 2011). The study also suggested that coaches can structure an environment as either autonomous or controlling, and the values

demonstrated within these environments will often influence the athlete's motivation and behavior (Hodge & Lonsdale, 2011).

Cranmer and Brann (2015) suggested that athletes prefer to be recognized as individuals with their own specific needs, and when they are communicated to in such a way which recognizes those needs, they feel a stronger bond with their coach built on confirmation. Kenow and Williams (1999) suggested that the coach's behavior and perceived supportiveness impacted the confidence levels of their athletes. As a byproduct of this perceived supportive behavior, the athlete's confidence levels increased and subsequently so did the compatibility between the pair (Kenow & Williams, 1999). The compatibility of the coach-athlete relationship was also investigated by Horne and Carron (1985) who suggested that the best predictor of an athlete's satisfaction was the coach's ability to consider an athlete's preference of training. This implies that an athlete is happy to relinquish control to the coach, as long as their coach considers their wants and needs. On the whole, the research tends to suggest that a stable coach-athlete relationship is built on trust and perceived supportiveness, particularly in the eyes of the athlete (Cranmer & Brann, 2015; Horne & Carron, 1985; Kenow & Williams, 1999).

Due to the current academic requirements of collegiate sport, coaches tend to be much more invested and concerned with the academic welfare of their athletes due to the possibility of penalties and sanctions enforced upon their teams (Christy, Selfried, & Pastore, 2008). Such sanctions may potentially affect how frequently a coach stresses the importance of academics to her/his student-athletes. Adler and Adler (1985) highlighted the significance of the involvement of coaches when it came to student-athlete academics finding that coaches would often handle the academic matters of their athletes by

scheduling their classes and interacting with faculty on the athletes' behalf. Furthermore, coaches of collegiate programs who actively support academic success will schedule practices and games to fit around a student-athlete's academic schedule (Coakley, 2017). This emphasis on academic involvement was highlighted by Weight, Cooper, and Popp (2015), who found that coaches viewed themselves as educators first and that they desired to be appreciated more for their impact and involvement within student-athlete academics. This desire was also acknowledged by Woods (2016), who suggested that coaches working in educational settings should be judged based on their contribution to student-athlete academic success.

An athlete's coach is known to influence how an athlete perceives themselves academically. This notion of enhanced athletic and diminished academic identities is known to be greatly influenced by those within an athlete's social circle, most notably by their student-athlete peers and their coach (Chen, Snyder, & Magner, 2010; Simons, Van Rheenen, & Covington, 1999). Researchers have suggested that if a student-athlete perceives her/his coach to be unbelieving of their academic abilities, the more likely they are to prioritize their athletic identity over their academic (Feltz, Schneider, Hwang, & Skogsberg, 2013). Likewise, the more frequently the coach addressed the importance of academic achievement, the more supported student-athletes' felt with the pursuit of their academic goals (Cranmer & Brann, 2015). Beamon (2008) found that student-athletes recognized themselves as athletes first due to the athletic demands coaches placed upon them. One respondent suggested that their coach emphasized the importance of academics in the recruitment process, but, on arrival, displayed a completely different stance (Beamon, 2008). Such a change in perspective may be the byproduct of coaches having to

emphasize winning over academics in order to increase their own job security (Weight et al., 2015). When coach job security is measured by athletic success rather than the academic success of their student-athletes, coaches will often place their own pressures onto an athlete which has been known to affect their academic work (Simiyu, 2010).

A negative relationship with the coach has been known to impact student-athlete retention, a factor which will ultimately impact the athlete's ability to graduate on time or even at all (Weiss & Robinson, 2013). In extreme cases of a poor coach-athlete relationship, athletes will either drop out of their sport, or burnout entirely (Raedeke, Lunney, & Venables, 2002). Richards, Holden, and Pugh (2016) suggested that a preference of coaching style was a reasoning factor for considering a collegiate transfer. Furthermore, factors under the coach's control such as playing status may impact an athlete's decision to transfer (Schneider & Messenger, 2012). Before choosing a school, one of the most influential components for a student-athlete to consider is their "opportunities to play" (Schneider & Messenger, 2012). The amount of playing time that an athlete receives has been identified as a significant predictor of whether an athlete is retained (Johnson, Wessel, & Pierce, 2013). Also, their role on the team may impact their perception of how competent the coach is within certain game situations (Phillips & Jubenville, 2009). Likewise, their playing status and team success will likely influence their overall satisfaction with the coach and sport (Turman, 2008). This evidence from previous research indicates that certain factors that the coach has control over may be impacting their decision to transfer to another institution (Johnson et al., 2013; Weiss & Robinson, 2013). These findings suggest that positive relationships are a key influencing factor in the persistence of student-athletes (Horton, 2009). According to Woods (2016),

one of the most significant relationships for a student-athlete is the one they have with their coach.

In terms of the coach's influence on graduation, Adler and Adler (1985) suggested that coaches would often stress the importance of "getting that piece of paper," and would encourage their athletes to work hard on their academics to facilitate graduation. Yet, athletes felt that any discussion related to degree attainment with coaches was essentially "lip service," with coaches perceiving it as an unrealistic or an unimportant goal (Beamon, 2008). A study investigating factors impacting the graduation rates of college basketball players determined that graduating players was not a primary function of a head coach's job (Terry et al., 2014). Instead, the findings suggested that their role was more concerned with aspects of winning and engaging the fan base (Terry et al., 2014). Despite this, the findings related to the importance of the coach-athlete relationship, their influence on academic success, and their ability to impact retention tend to indicate that they could be an influencing factor on whether an athlete graduates (Cranmer & Brann, 2015; Johnson et al., 2013; Richards et al., 2016; Weiss & Robinson, 2013).

In regards to international student-athletes, there is very little research regarding the coach-athlete relationship. The majority of research on this topic investigates the coach-athlete relationship from the coach's perspective with a focus on how satisfied the coaches were with their international student-athletes, the challenges they faced when dealing with them, and their coaching adaptations in order to facilitate performance and growth (Duchesne, Bloom, & Sabiston, 2011). Trendafilova, Hardin, and Kim (2010) suggested that international student-athletes were on the whole satisfied with coach leadership; however, there is no research that indicates whether satisfaction with that

relationship influences their desire to stay in school or graduate. Therefore, this study seeks to investigate international student-athlete satisfaction with leadership as a potential predictor of graduation within its model.

### **Opportunities and Aspirations**

One of the potential factors which may determine whether an athlete graduates or not is the amount of professional opportunities afforded to them in their sport, and their overall desire to pursue those opportunities. Much of the research concerning studentathlete aspirations to pursue a professional athletic career investigates athletic identity. Athletic identity is defined as the degree to which an individual identifies with their athlete role and looks to others for acknowledgment of that role (Brewer, Van Raalte, & Linder, 1993). Lally and Kerr (2005) found that student-athletes often planned for a career in professional sports early on in their college careers, which was linked to high identification with their athletic identity role. Those, in particular, who participated in revenue-generating sports like basketball and football held significantly higher expectations and optimism for themselves in pursuit of potential opportunities to play professional sports (Tyrance, Harris, & Post, 2013). These potentially unrealistic expectations set by student-athletes may be a result of institutional failures to expose student-athletes to alternatives roles which offer other potential career outlets eventually leading to a lack of career maturity in many student-athletes (Murphy, Petitpas, & Brewer, 1996).

Researchers have recognized the regularity of highly skilled student-athletes forgoing free educations in favor of becoming professional athletes (Spavero, Chalip, & Green, 2007). In regards to opportunities within professional sport, much of the research

concerns the discrepancies which exist between genders. The research suggests that women have significantly fewer opportunities to compete at the professional level of sport than men (Theberge & Birrell, 1994). The lack of professional sports opportunities afforded to women may as a result significantly impact their academic performance and contribute to higher graduation rates (Meyer, 1990). These findings were further emphasized by Melendez (2006), who suggested that women graduate at a significantly higher rate due to the lack of professional sport opportunities afforded to them postgraduation. Major professional career opportunities for women in sport are concentrated to just a few individual sports, with a distinct lack of career outlets for athletes competing in team sports (Theberge & Birrell, 1994). Even when professional opportunities in team sports are afforded to them, the leagues are often saturated with issues relating to resources, exposure, and equal pay (Theberge & Birrell, 1994). Despite these lack of opportunities, Tyrance et al. (2013) indicated that male student-athletes demonstrated a better understanding of other potential career pathways than female student-athletes did. Furthermore, female student-athletes had significantly higher identification with their athletic identities than male student-athletes (Tyrance et al., 2013). This potentially represents a huge problem for females who identify solely as an athlete, and are afforded minimal opportunities to explore that identity in professional sport. Compounding the issue for many female student-athletes, is that men who compete in collegiate sport are granted with significantly higher earning power opportunities in other lines of work compared to other subgroups (Long & Caudill, 1991).

In most instances, the idea and motivation to compete in an American professional sport league means that the student-athlete will have to attend a college or university to

pursue that dream (Burgess & Cisneros, 2018). It is also a well-known fact that perceived future professional playing opportunities are a deciding factor when an athlete chooses an institution (Schneider & Messenger, 2012). Therefore, this indicates that school and academics are not often the primary factors for many student-athletes in their reasoning for enrolling in a particular institution.

The expectation of "going pro" has also been linked with a negative correlation with the amount of time spent studying (Beamon & Bell, 2002). This suggests that many elite student-athletes are willing to subjugate all other career opportunities for the sake of a shot to play at the professional level (Beamon & Bell, 2002). It has been suggested that the graduation rate gap between student-athletes and undergraduates would significantly be in favor of the former, had there not been so many athletes in revenue-generating sports leaving school early in order to compete professionally (Rishe, 2008). It is argued that if those student-athletes had not left school, they would have seen an increase in their student identity and academic commitment later within their college careers (Lally & Kerr, 2005). This may be the case; however, Adler and Adler (1985) demonstrated that chances of graduating by that point might be unattainable due to the lack of academic commitment shown by student-athletes earlier in their collegiate careers. Before 2016, when a collegiate basketball student-athlete pursued a professional opportunity before their senior year, they effectively gave up their NCAA eligibility in order to do so due to NCAA amateurism rules (NCAA, 2018), greatly diminishing their chances of graduating within six years. Nowadays, the NCAA has incorporated less stringent boundaries which allow athletes to pursue professional playing opportunities and also attain a degree (NCAA, 2018). However, only some of these athletes eventually return to college in order

to attain their degree; but for others, college may have served its purpose in preparing them for a professional sports career. Therefore it seems that a combination of less stringent NCAA restrictions, the type of sport played, and their overall motivation to pursue professional opportunities is likely going to affect an athlete's mentality towards turning professional.

The evidence from prior research indicates a link between increased sporting opportunities, and a willingness to pursue those opportunities, with graduation and retention failure (Rishe, 2008; Spavero et al., 2007). There seems to be a willingness on the part of some college student-athletes to compromise academic success for a career in professional sport. This in turn has the ability to impact whether a student-athlete pursues and eventually achieves degree attainment. This research will incorporate the two constructs of professional opportunities and aspirations within its model to see if there are similar prospects and desires for international student-athletes, as there are for domestic ones, which affect graduation.

### **Athletic Financial Support Received**

In order to pursue a professional basketball playing opportunity in the U.S., the most conventional method of doing so is through the collegiate athletic pathway (Chalip et al., 1996). The magnitude of U.S. collegiate sport has made it a financial goldmine, and therefore colleges will pursue the best players by offering financial awards tailored to help with their academic pursuits (Hosick, 2010; Pitts & Rezek, 2010; Ridinger & Pastore, 2001). Therefore, another potential factor linked with the academic success, retention, and eventual graduation of student-athletes is the amount of athletic scholarship awarded to them. Receiving athletic-related financial aid is a motivating factor that determines where

an athlete is likely to attend school (Schneider & Messenger, 2012). Furthermore, athletic financial support and the overall cost of attendance at institutions is recognized as a motivating factor in a student-athlete's decision to attend college in the first place (Burgess & Cisneros, 2018).

In regards to the impact of financial support on academics, Milton, Freeman, and Williamson (2012) found that student-athletes who received any amount of athletic scholarship were significantly more likely to have a GPA score of at least 3.0. However, this study did not take into consideration the potential differences which may exist between fully-funded and partially-funded athletic scholarship athletes.

Concerning athletic financial aid's ability to influence retention and graduation, scholarship support by itself was not significantly linked to retention; however, it was a significant predictor of retention when associated with gender and sport type (Le Crom, Warren, Clark, Marolla, & Gerber, 2009). Other research suggested that personal factors, such as transferring to a school offering a better financial situation, were significant factors considered by student-athletes when deciding to transfer schools (Weiss & Robinson, 2013). There is limited, if any, research which addresses explicitly how scholarship funding affects graduation, yet, attempting to maintain their financial aid monies was found to be a significant predictor of student-athlete motivation in achieving degree attainment (Schurr et al., 1993). Likewise, the greater the athletic financial aid resource of a program, the more positive the graduation rates were of their athletes; indicating that athletes were more willing to stay and pursue degree attainment when the financial implications were higher for the athlete (Terry et al., 2014).

There is a relatively small amount of research on athletic scholarship impact on student-athletes. However, on the whole the existing literature may indicate a potential link between athletic scholarship funding and potential degree attainment (Le Crom et al., 2009; Weiss & Robinson, 2013). This demonstrates a need for its inclusion within a model that investigates potential predictors of the graduation rates of international student-athletes.

#### **International Student-Athletes**

A subgroup which has been shown to have uniquely different challenges in their pursuit towards graduation is the international student-athlete population (Popp, 2006; Popp et al., 2010; Sato, Hodge, & Burge-Hall, 2011; Tyler, 2018). As a population, the number of international student-athletes studying and participating in collegiate sport continues to rise (Hosick, 2010). Coaches, particularly at the lower levels of collegiate sport, are often forced to recruit international student-athletes in order to remain competitive amongst larger institutions who have the budgets to recruit the best domestic talents available (Ridinger & Pastore, 2001). These recruitment strategies from coaches, along with the lure of the glitz and glamour of American collegiate sport, may drive these athletes to seek out opportunities within the States (Popp et al., 2010). Another suggested motivator for international student-athletes to relocate to the US is the opportunity to receive better coaching and to have access to world-class facilities (Bale, 1997). Furthermore, other influencing factors, such as their role-models advancing through similar pathways, may contribute to their decision (Popp et al., 2010). These findings suggest that international student-athletes are not completely satisfied with the sporting environments within their home countries, and subsequently seek out playing

opportunities where the demands of sport seem to be more professionalized (Bale, 1997; Popp et al., 2010).

Once the international student-athletes transition to the US, several factors are seen to be uniquely challenging to their experience. One of the most notable and regularly studied challenges are concepts related to cross-cultural adjustment. Research suggests that international student-athletes tend to enter college with a difference in perspective concerning the athletic and academic experiences when compared to their domestic teammates and coaches (Popp, 2006). Therefore, it is not unwise to suggest that international student-athletes may take time to adjust when placing greater emphasis on aspects that they had previously considered unimportant (Popp, 2006). Tyler (2018) suggested that international student-athletes felt less culturally accepted compared to their domestic counterparts, and therefore they felt they had to assimilate their behaviors in order to fit. This evidence of marginalization and cultural acceptance seems to be exasperated for international student-athletes who attend historically black institutions (Sato et al., 2011). Although it must be noted that this was only the case for international student-athletes with lighter skin complexions (Sato et al., 2011). Furthermore, international student-athletes whose first language was not English may have found adjustment harder due to their inability to understand academic and athletic instruction (Popp et al., 2010; Sato et al., 2011). Despite these challenges, international studentathletes are on the whole satisfied with their collegiate sport experience (Trendafilova et al., 2010).

From an academic perspective, international student-athletes may be considered overachievers in the classroom compared to their domestic counterparts (Kane et al.,

2008; Popp et al., 2009). International student-athletes tend to prioritize their goals differently compared to their domestic counterparts, paying more attention to their academic endeavors along the way (Popp et al., 2009). Yet despite this, international students seem to be at far greater risk of dropout compared to other subgroups within US collegiate institutions (Radcliffe et al., 2006).

One of the unique subgroups of the international student-athlete population is British basketball players. Basketball is severely underfunded compared to other sports in the UK and is considered a small-time player on the world stage, but still finds a way to frequently produce a vast amount of athletes who are keen to bring their talents across to the US collegiate systems. In 2019, the Great Britain men's national team was ranked 44<sup>th</sup> in the World Rankings (FIBA Basketball, 2019) but were ranked joint 6<sup>th</sup> in terms of male basketball player representation at NCAA DI and NCAA DII levels (NCAA, n.d.). Comparatively, the women's national team fares slightly better at 25<sup>th</sup> in the world (FIBA Basketball, 2018) and are the 7<sup>th</sup> most represented country in NCAA DI and NCAA DII competition (NCAA, n.d.). These rankings do not take into consideration the vast amount of British basketball players who seem to ply their trade at the NCAA DIII, NJCAA, and NAIA levels respectively. This population is worthy of investigating given their ability, or inability, to graduate from their intended program of study. Rumors surfacing throughout the British basketball community suggest that around three-quarters of their athletes who migrate to the US from the UK fail to complete their intended program of study, and subsequently fail to graduate. This seems to be an area worthy of study for two reasons. Firstly, the opportunity to quantifiably investigate the accuracy of the figures rumored offers a unique challenge to determine the retention and graduation risk of the group.

Secondly, the opportunity to investigate predictors which may be impacting and influencing this population's ability to graduate also seems worthy of investigation. The research findings will help educate future generations of British basketball players with their U.S. collegiate student-athlete pursuits, and to identify suitable candidates for that transition. Furthermore, the research has the capability to aid British basketball governing bodies in the restructuring of their developmental pathways, and to aid those that are not well suited to make the transition to the States by enhancing university-level competition in the UK. Therefore, the purpose of this study is to determine what predictors may influence the graduation rates of British basketball players that have migrated to collegiate programs within the United States.

#### Methods

The purpose of this study was to investigate the factors which best predicted the graduation of British basketball players at their first U.S. collegiate institution. Due to a large number of British basketball players making the transition, and the time restraints in place, a qualitative study was ruled out. To this end, a quantitative method was used to collect data on the factors influencing graduation rates for British basketball players in the US.

#### Sample

The sample would be comprised of British basketball players who have at one time played in one of the five college levels within the United States. This sample was chosen as the study aimed to determine factors that directly impact the graduation rates of said population. Furthermore, they have also experienced life within a collegiate basketball

environment as a British basketball player, and therefore their personal experiences may have impacted their decision to drop-out, transfer, or stay at their initial committed institution.

To qualify for inclusion within the study, participants had to be British basketball players who have played at one of the five collegiate levels within the United States. These levels are NCAA DI, NCAA DII, NCAA DIII, NJCCA, and NAIA. These are the five most recognized collegiate basketball levels within the United States, with athletes combining their sporting goals with their academic pursuits. Participants also must have either graduated or left their initial US school before the start of data collection to qualify for participation. Any British basketball player that was considered to be currently studying at their initial institution at the start of data collection was to be excluded from the study. This criterion was chosen to take into account those that had graduated or had left their initial institution, while excluding those that are still in the process of studying at their initial institution. Those that were still studying at their initial institution were not targeted as they have yet to have had the opportunity to graduate or leave an institution, meaning that they had not achieved the dependent variable of the current research. Furthermore, any potential candidates for inclusion had to have played in one of the U.S. collegiate systems in either the year 2000 or after it. Any British basketball players who played in the United States collegiate systems before the year 2000 were also excluded from eligibility. The year 2000 cut-off was chosen as it allows for a larger sample size of qualifying candidates, while also remaining within the modern-era period of basketball player migration.

# **Study Design**

A logistical regression design was utilized for the study. The data was collected using a questionnaire style format that was collected online over a three-week period.

#### **Procedures**

After receiving IRB approval, the data collection for the study took place over three weeks in the autumn of 2019. Participants were identified as eligible for the study through Basketball England and Hoopsfix databases. Hoopsfix is considered a British basketball media channel with a website that tracks transatlantic player movement through databases for British basketball players. Basketball England, the sport's national governing body in England, offered their support with the recruitment of potential candidates. Potential participant email contact information was then provided to the research team by a combination of these organizations, as well as current and former coaches. Current and former coaches were also asked to encourage participation in the study to any identified participants.

Once participant email contact information was collected, the lead researcher would contact the participant to inform her/him of her/his eligibility. The email would contain information regarding the purpose of the study as well as a general outline of the procedural elements. Attached to the email was a link to the study's questionnaire, which was created on Survey Monkey, and participants had the option to click on this to complete the survey. Throughout data collection, participants were emailed weekly to remind them of their eligibility to participate, and to encourage participation if they so agreed.

When participants clicked on the link to participate, it would take them to the consent form on the front page of the online questionnaire. If participants agreed to partake in the study, they would click to indicate before opening the questionnaire. The online questionnaire took approximately 30 minutes to complete, and once completed, participants submitted the data for analysis.

#### **Measures**

### Overview.

The variable items within the main part of the questionnaire document included:

(a) leadership satisfaction (Athlete Satisfaction Questionnaire; Chelladurai & Riemer,

1998); and (b) opportunities and aspirations to play professionally. All the items of these
variables were randomized before administration. The second part of the questionnaire
combined both demographic information and variable items. The other variable items
being tested in the demographic section of the questionnaire included: (a) their academic
preparedness through UK high school grades; (b) the type of athletic scholarship awarded
to them; (c) whether they graduated from their initial institution; and (d) the length of time
it took to graduate from their initial institution. The length of time it took to graduate was
taken to discredit graduation of those that had taken longer than the proposed amount of
time given to student-athletes to graduate. In the case of the current research, graduation
was defined as; "graduating from their first US institution intended course of study." In
four-year colleges (NCAA DI, NCAA DII, NCAA DIII, & NAIA), this was determined
by whether they had graduated within a six-year timeframe from initial entry into that

institution. For two-year colleges (NJCCA), this was determined by whether they had graduated within a four-year timeframe from initial entry into that institution.

#### Coach satisfaction.

The leadership satisfaction variable within the questionnaire was assessed using a 7-point Likert scale taken from the Athlete Satisfaction Questionnaire (ASQ: Chelladurai & Riemer, 1998). The ASO is a multi-dimensional scale which aids researchers who wish to determine athlete satisfaction with their overall athletic experience (Chelladurai & Riemer, 1998). One of the variables assessed within the ASQ is a leadership component and it is comprised of 19 items. The leadership variable is broken down into four components that define the athlete's overall satisfaction with their coach/leader. The components comprising leadership satisfaction included: (a) ability utilization (e.g., "I was satisfied with the degree to which my abilities were used"); (b) strategy (e.g., "I was satisfied with the coach's choice of plays during competition"); (c) personal treatment (e.g., "I was satisfied with the recognition I received from my coach"); (d) training and instruction (e.g., "I was satisfied with the training I received from the coach during the season"). The original version of the ASQ offered both past and present tense options regarding the wording of questions. Based on the recall element of the current study, the past tense options were utilized. Respondents would then mark how satisfied they were with the first coach they had played for in their US college on a 7-point scale running from "Not at all Satisfied" (1) to "Extremely Satisfied" (7).

For the current study, the original 56 item ASQ needed to be modified to take into account the components which accounted for leadership and the coach-athlete

relationship. All other items within the ASQ were considered peripheral to our study and less salient in their ability to affect graduation rates. As a consequence of this, 37 items unrelated to leadership satisfaction were removed from the study. Modifications to the ASQ have been successfully made in previous research by Eys, Carron, Bray, and Beauchamp (2003) where items were removed for similar purposes. This provided the justification needed to down-scale the ASQ for use within the current study.

The reliability and validity of the measurement scale was previously assessed by Riemer and Chelladurai (1998). In regards to reliability, the findings from their research indicated that all 56 items in the questionnaire had internal consistency coefficients ranging from .78 to .95 (M = .88), which was much higher than the .70 value suggested by Nunnally and Bernstein (1994). In terms of construct validity, Riemer and Chelladurai's (1998) research provided sufficient enough evidence to conclude the accuracy of the measurement in its ability to assess athlete satisfaction. All leadership constructs showed construct validity that was within the boundary of the scale (0.00-1.00) and headed in the right direction. Furthermore, all leadership items displayed low error variance (< .50).

## Opportunities and aspirations.

No previous research has investigated the professional sporting opportunities and aspirations afforded to student-athletes, and therefore a scale measurement had to be created to measure these variables. For the purpose of the study, opportunities was defined as "the level of perceived realism in pursuing paid professional basketball opportunities while in their freshman year of college." Aspirations was subsequently defined as "their willingness to pursue paid professional opportunities within basketball while in their

freshman year of college." An example of an opportunities statement used within the questionnaire was: "When I was in my freshman year of college I thought professional basketball was a viable form of employment." One of the aspirations statements in the questionnaire included: "When I was in my freshman year of college I wanted to eventually play professional basketball." Both opportunities and aspiration statements were to be measured on a 7-point Likert scale on a scale of agreeability. The scale measured from "Strongly Disagree" (1) to "Strongly Agree" (7).

In the creation stage of the opportunities and aspiration variables, the statements created were agreed upon by researchers to determine face validity. Once these statements were agreed upon, a pilot test of the questionnaire was distributed to domestic collegiate basketball student-athletes who were accessible to the research team. The pilot test was run to determine the construct validity of the statements and the reliability of the interrelated items.

To test the internal consistency of items, and to determine the appearance of reliability, a Cronbach's Alpha test was run. The professional opportunities construct consisted of five items ( $\alpha$  = .90), and the professional aspirations construct consisted of a further five items ( $\alpha$  = 97). The findings from the Cronbach's Alpha test suggested that both variables were extremely reliable. The construct validity of the two variables was then investigated by testing the convergent and discriminant validity. An exploratory factor analysis was utilized to determine the validity and underlying relationships between the 10 professional opportunities and aspirations items. This found two factors with eigenvalues exceeding 1, explaining around three-quarters (75.6%) and a tenth (10.4%) of

the variance respectively. This represented the presence of potentially two underlying factors. However, when assessing the component matrix, which investigates the factor loadings between items and factors, Opportunities2 and Opportunities3 items produced double loadings for each component. Ideally, the items would have measured precisely one factor. This presented a potential issue in terms of how each variable was being interpreted and suggested that opportunities and aspirations were being perceived as the same thing. Therefore, our data analysis procedures were modified to run another exploratory factor analysis on the main dataset before running the logistical regression analysis. This was done to determine whether opportunities and aspirations was going to be used as one or two separate constructs within the logistical regression model.

# Athletic scholarship awarded.

The amount of athletic scholarship awarded to a participant was determined based upon the amount of financial aid awarded and was coded into three categorical variables. Previous research using athletic financial support as a variable had categorized financial support as those that do, and those that do not receive aid regardless of the amount (Milton et al., 2012). Previous research indicated that student-athletes may transfer to other schools due to the lure of more financial support (Weiss & Robinson, 2013). Therefore, for this current research project, both full and partial athletic scholarships would be taken into consideration as the amount of scholarship received is posited to affect one's ability to graduate from their first university. The three categorical items included in the study were: (a) Full athletic scholarship (e.g., covers full tuition and fees, room, board, and course-related books); (b) Partial athletic scholarship (e.g., covers a portion of tuition and

fees, board, and course-related books, but some of these costs are paid for by the athlete or a secondary source); and (c) No athletic scholarship (e.g., no money given to cover tuition and fees, board, and course-related books).

# Academic preparedness.

Zwick and Sklar (2005) indicated that high school grades are the best indicator of academic preparedness for domestic students. However, in the case of most British basketball players, their high school education took place in the UK, which differs significantly from how US high school grading systems operate. The UK education system offers two different educational pathways to high school students. The two qualifications available to British students from ages 16 to 19 are advanced level qualifications (A-levels) and Business and Technology Education Council (BTEC) qualifications. According to the Universities and Colleges Admissions Service (UCAS), A-Levels are subject-based qualifications that provide students with the opportunity to pursue further study, training, or work opportunities from two years of studying (UCAS, n.d.). These qualifications are often geared towards more traditional subjects such as math and English, with students usually studying for three A-levels but with an option to pursue more. BTEC diplomas, on the other hand, are considered more vocational and practical qualifications, which are considered A-level equivalents, for students who want to specialize in a specific study area. These classes are tailored to specialist industries such as sport and entertainment. It is widely regarded that BTEC Extended Diploma qualifications equate as the equivalent of three A-levels. The different content and

evaluation standards for these qualifications can cause some confusion in terms of how to utilize these grading systems in research.

For measurement, we had to find a way to equate the two qualifications to differentiate between high-grade and low-grade students. Thomson (2017) was used as a guide to determine the equivalence between the two qualifications. Utilizing the article from Thomson (2017), a numerical value was then placed next to each qualification, as shown in Table 1. To determine face validity, Table 1 was sent to three experts who were either currently working in or had previously worked in further education and higher education sport sectors in the UK. These experts determined that this was a valid way of comparing and measuring the two qualifications.

**Table 1.**A visual comparison between A-level and BTEC Extended Diploma qualifications with a numerical value placed at each grade

A-Level Grade	BTEC Extended Diploma Grade	Points Awarded
A*	D*	7
A	D	6
В		5
С	M	4
D		3
Е	P	2
U		1

# **Statistical Analysis**

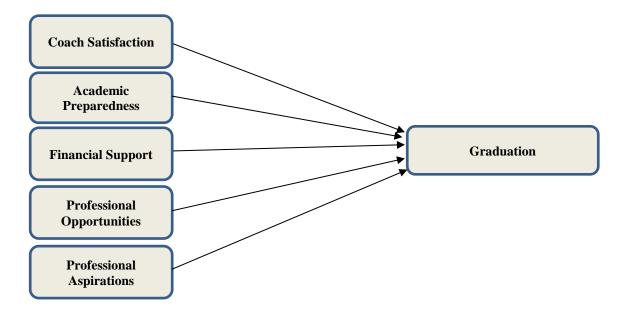
A logistic regression modeling framework was utilized to predict the outcome variable of graduation. This statistical technique was chosen as it allows researchers to predict a dichotomous outcome variable from a set of independent variables (Pallant, 2013). Unlike linear and multiple regression, which accounts for the dependent variable being continuous, logistic regression allows researchers to predict an outcome variable that is categorical (Hosmer & Lemeshow, 2000). Logistic regression also requires fewer assumptions compared with other regression modeling techniques, which makes it a more appealing and flexible predicting technique (Norusis, 1994). Furthermore, predictor variables incorporated within a model are allowed to be a combination of both continuous and dichotomous (Pallant, 2013). In the case of the current research, the categorical outcome variable relates to the graduation component (Did they graduate? - yes or no). The independent variables used for the study included both categorical and continuous variables. The categorical variable used within the current model would be the financial support independent variable, while all other independent variables in the model would be considered continuous.

SPSS 25 was used to analyze the data gathered. To determine whether a participant had graduated within the period allocated for the study, it had to be coded to indicate those who took longer to graduate than expected. Before running the primary analysis, an exploratory factor analysis test was run on opportunities and aspirations variables to determine the relationship between both constructs. The findings from the test

would determine whether the variable would be utilized as one or two separate constructs within the logistical regression model.

It was intended that logistic regression was to be the statistical test used for the study. However, to determine the effectiveness of the logistic regression model, certain assumption tests had to be administered before undertaking. The first assumption test run was a descriptive statistics test on each predictor variable to determine if there was an adequate sample size associated with each of them. Failure to have an adequate sample size and spread across each predictor variable would significantly impact the effectiveness of the model. The next assumption test undertaken was related to multicollinearity. It was important to check the intercorrelations amongst predictor variables to determine whether the predictors were strongly related to the dependent variable, but not the other predictors. To do this, a collinearity diagnostics test was administered. The final assumption test was to investigate the appearance of any outliers within the data set. Any outliers within the dataset had the capability of causing problems with the goodness of fit of the current model, and therefore the residuals of data were investigated. Once all the assumption tests had been met, a logistic regression test was then conducted to determine the influence of the independent variables in effecting graduation rates of British basketball players in the US.

Figure 1. The logistical regression model used within the analysis predicting the outcome variable of graduation.



### **Results**

The purpose of this study was to determine the predictors influencing graduation rates of British basketball players that have migrated to collegiate programs within the United States. To this end, former British basketball college student-athletes were asked to provide their experiences at their first US school. Of this population, 78 participants agreed to participate in the study. The average age of participants was 25.08 (SD = 4.80), and the ages ranged from 19 to 39. All UK regions were represented within the participation group. Likewise, the participation group represented participants from all five US college basketball levels. Table 2 and Table 3 demonstrate the breakdown of participants by UK region and by the level they competed. Participation was primarily dominated by those of white ethnicity (n=57), with black (n=9) and mixed (n=12) participants making up the remainder of the participation group. Of the 78 participants, 44

of them had graduated from their initial institution, and 34 of them had transferred or left their first US university. Therefore, 56.4% of the population had graduated from their initial college of choice, whereas the remaining 43.6% had not.

Table 2.Participation breakdown by each UK region

Region Represented	Frequency	Percentage		
East	17	21.8%		
London	13	16.7%		
North West	13	16.7%		
South East	10	12.8%		
South West	5	6.4%		
East Midlands	4	5.1%		
South	4	5.1%		
Yorkshire	4	5.1%		
West Midlands	3	3.8%		
North East	3	2.6%		
Wales	2	2.6%		
Scotland	1	1.3%		

**Table 3.**Participation breakdown based on the level of collegiate basketball initially played

Level Competed At	Frequency	Percentage of Participation	
		Group	
NCAA DI	24	30.8%	
NCAA DII	29	37.2%	
NCAA DIII	4	5.1%	
NJCAA	16	20.5%	
NAIA	5	6.4%	

The 10 items of the opportunities and aspirations scale were subject to reliability testing and an exploratory factor analysis test using SPSS 25. The 10 items were found to be reliable ( $\alpha$  = .98), which correlated closely with the findings from the opportunities ( $\alpha$  = .90) and aspirations ( $\alpha$  = .97) constructs from the pilot study. The findings of the exploratory factor analysis identified one factor with an eigenvalue greater than 1. The factor comprised of all 10 items and explained 81.96% of the variance with factor loadings ranging from .85 to .97. Therefore, it was decided that the opportunities and aspiration items would be combined for analysis within the logistical regression model to predict graduation. The factor loadings for all opportunities and aspiration items can be seen in Table 4.

**Table 4.**Component matrix from the exploratory factor analysis of opportunities and aspiration items

	Component 1
Aspirations4	.969
Opportunities2	.964
Aspirations1	.951
Aspirations2	.945
Opportunities4	.893
Opportunities5	.885
Aspirations3	.882
Aspirations5	.860
Opportunities3	.847
Opportunities1	.846

To ensure that the model achieved as much statistical power as possible given the sample size, only the four items with the greatest factor loadings were used to make up the construct of opportunities and aspirations: Aspirations4, Opportunities2, Aspirations1, and Aspirations2. To establish that internal consistency belonged between these four items, a Cronbach's alpha test was administered. The findings of the analysis determined that all four items were reliable amongst one another ( $\alpha = .979$ ).

When initially assessing the data, it was decided that some variables would be modified to accommodate for sample size and data. For the financial support variable, the participation group was primarily comprised of those on a full-scholarship (n = 51). The number of participants who received no athletic scholarship was limited, and therefore it was decided that those on partial (n = 19) and those that received no athletic scholarship (n = 3) would be grouped for analysis. Pallant (2013) recommends such modifications for logistical regression when categorical predictors have limited cases in each category.

Another proposed modification was discussed for the academic preparedness scale, as 30 participants within the study were only able to provide two or less high-school grades. The consideration was to divide the score given to them by the number of qualifications they had taken, thus given them an average score equating to academic preparedness based on the amount of classes taken. However, after researching, it was decided that the current academic preparedness scale would be utilized, as Oxford Royale Academy (2017) suggest that a minimum of three qualifications are needed to be considered for post-high-school study at UK universities. Therefore, suggesting that three qualifications are needed to pursue university studies.

Of the 78 participants who completed the survey, five cases reported missing data linked to the academic preparedness predictor variable and therefore were removed from the logistical regression analysis. This left 73 participants in the sample. Assumption tests demonstrated no visible presence of multicollinearity between predictor variables and no visible outliers. The sample size was lower than anticipated; however, Stevens (1996) recommends that around 15 participants per predictor variable is sufficient for social science research. A direct logistic regression modeling test was then performed to assess the impact of the four predictors on their ability to affect graduation rates in British basketball players at US colleges. The model contained four independent variables (coach satisfaction, academic preparedness, financial support, and professional opportunities and aspirations). The full model proposed containing all predictors was not statistically significant,  $\mathbf{x}^2$  (4, N = 73) = 6.97, p > .05, indicating that the model was unable to distinguish between respondents who reported that they had, or had not, graduated from their initial US institution. The model explained between 9.1% and 12.2% of the variance in graduation prediction, and correctly classified 58.9% of cases. As shown in Table 4, none of the independent variables utilized within the model had a statistically significant bearing in the model. The strongest predictor was the financial aid construct, which recorded an odds ratio of 2.83. However, this was not a significant predictor. The odds ratio for financial aid indicated that respondents who failed to graduate were over two times more likely to be on a partial or have no athletic scholarship compared to those that did graduate. Contrastingly, the weakest performing predictor was coach satisfaction with an odds ratio of .83. The odds ratio for coach satisfaction indicated that participants were not leaving their initial school as a byproduct of factors controlled by the coach.

**Table 5.**Logistic regression variables predicting the likelihood of graduation

							95% C.I. for	
							EXP (B)	
	В	S.E	Wald	df	Sig.	Exp(B)	Lower	Upper
Academic	07	.06	1.43	1	.23	.93	.84	1.05
Preparedness								
Financial Aid	1.04	.55	3.54	1	.06	2.83	.96	8.37
Coach	19	.18	1.08	1	.30	.83	.58	1.18
Satisfaction								
Opportunities	.17	.14	1.42	1	.23	1.18	.90	1.55
and								
Aspirations								
Constant	.19	1.25	0.22	1	.88	1.21		

### **Discussion**

The purpose of this research was to determine the factors that predict graduation and retention in British basketball players that migrate to US colleges. The model proposed, which included constructs pertaining to coach satisfaction, academic preparedness, financial aid, and professional opportunity and aspiration predictors, was unable to significantly predict graduation and retention of British basketball players at their initial US institution. Furthermore, the research aimed to quantifiably address rumors from the British basketball community that suggests that around three-quarters of British basketball players fail to graduate from the US institution that first recruited them. The findings from this study predict that the risk is not as bad as initially feared with 43.6% of participants failing to graduate from their initial intended US institution.

However, a 43.6% graduation failure still seems to suggest that an issue is there, particularly when comparing the population to the entire student-athlete population from the same sport. According to the most recent NCAA graduation success rate statistics, at the NCAA DI level, 85% of male and 90.7% of female basketball players graduated in the year of 2018 (NCAA, 2018). This would suggest that British basketball players are graduating at a much lower rate compared to NCAA DI basketball players. However, it must be acknowledged that the current strategies employed by the NCAA for graduation rates fail to take into account those that have transferred. Furthermore, when comparing British basketball player graduation rates to NCAA DII basketball players, the issue seems far less salient and nonspecific to just the British basketball population. At the NCAA DII level, 54% of male and 40% of female basketball players failed to graduate in 2018 (NCAA, 2018). This could suggest that graduation failure is the result of attending smaller schools that do not have the infrastructure and resources to support athletes throughout a four-year stay. Such an explanation has been supported by Nash (2017) who suggested that smaller NCAA DII schools may not be able to offer the same student-athlete service programs or support structures that are afforded to student-athletes at NCAA DI schools. Likewise, another explanation is that student-athletes could be leaving schools at lower levels to gain entry into higher collegiate programs that fulfill their athletic identity and ambitions (Nash, 2017). Some may argue that attending a lower level school may be more beneficial to certain individuals, with potentially more playing opportunities and a more balanced approach to the student-athlete experience (Wilbert, 1986). Therefore, completely discrediting lower-level competition as an option for British basketball players is unwise as it offers a different type of experience for student-athletes.

# **Athletic Scholarship Awarded**

Although not statistically significant, athletic financial aid was seen to be the greatest predictor of retention and graduation from US institutions for British basketball players. Despite it approaching significance, the variable was still above the significance threshold; and therefore, the finding indicates that athletic financial support fails to impact the academic persistence of British basketball players. Two possible explanations for this result may be warranted. Firstly, the finding could suggest that there is no real association between athletic financial aid and graduation or retention of British basketball studentathletes. This would align with previous research from Le Crom et al. (2009) that suggests scholarship support is only a significant predictor of graduation when gender, and the type of sport, are taken into consideration. Contrastingly, the results could contradict findings from Weiss and Robinson (2013) that suggests financial aid is a significant factor considered when student-athletes decide to transfer schools. One consideration that needs to be accounted for in any comparison with former research is the differences in the sample populations. For example, Weiss and Robinson's (2013) research used a sample which was comprised of American student-athletes. Therefore, any comparisons between the current research findings and Weiss and Robinson's (2013) findings need to take into consideration the differences between sample nationalities. The current research findings may then indicate that there is something unique about international student-athletes that creates different outcomes predicting graduation. An example of that being that financial aid has a significant bearing on the academic persistence of American student-athletes, but such factors are not as important for international student-athletes.

Despite this research's findings, it has been recognized that international students usually have to pay more school tuition fees, as well as unique travel costs, and therefore they rely on personal/family savings or contributions to fund their education (Ball, 2017). Taking that into consideration, it could be hypothesized that international student-athletes will decide to play at a school that offers them the best financial situation. This is supported by research from Popp, Pierce, and Hums (2011) who indicated that the most important factor considered by international student-athletes in the college selection process is the amount of athletic scholarship offered to them. Therefore, it would seem that the concept of financial aid on its ability to predict graduation and retention in international student-athletes potentially warrants further consideration in future research.

#### **Coach Satisfaction**

The remaining three predictor variables were also found to be insignificant in predicting graduation of British basketball players. In regards to coach satisfaction, which was the weakest predictor variable, the participants suggested that satisfaction with the coach-athlete relationship did not impact retention or graduation. This differed from previous research with domestic student-athletes which tended to indicate that factors under the coach's control impacted retention and eventual graduation (Johnson et al., 2013; Richards et al., 2016; Schneider & Messenger, 2012; Weiss & Robinson, 2013). Therefore, the findings from this research could suggest that British basketball players are more tolerant to situations under their coach then domestic student-athletes, and are less likely to leave a school based-off feelings and emotions impacted by their coach. With that being said, British basketball players may be able to adapt to various coaching styles and behaviors better than American student-athletes, and persevere through the situation

regardless of whether the relationship is viewed as positive or negative. Research on international student-athletes suggests that coaches need to consider adapting their training environments to keep international student-athletes satisfied (Trendafilova et al., 2010). It would seem then that either US coaches are adapting their environments to accommodate British basketball players, or British basketball players are willing to persevere under current approaches without it effecting their desire to leave an institution.

## **Academic Preparedness**

The academic preparedness variable also failed to predict graduation and retention rates of British basketball players. The research from Radcliffe et al. (2006) indicated that academic preparedness was one of the most potent predictors of retention and graduation in domestic student-athletes. Therefore, it seems strange that such a strong predictor has been completely disregarded in this research's findings. Radcliffe et al. (2006) research included international student-athletes within their datasets; however, the population only comprised 3.4% of that sample. Subsequently, the vast majority of the population within their study were American student-athletes. The research from Radcliffe et al. (2006) did not take into account the differences between international student-athletes and domestic student-athletes, and therefore academic preparedness may not be a factor that affects graduation for international student-athletes.

The research from Popp et al. (2010) indicated that international student-athletes thrive in academic situations in US schooling, but it seems that other factors, which are not specific to academics, have a greater influence over their ability to graduate.

Regardless of whether British basketball players are prepared or underprepared for college-level coursework, it is not affecting their academic persistence. Therefore, an

explanation for the finding may be that academic preparedness is a significant predictor in retention and graduation for domestic student-athletes, but insufficient in predicting graduation in international student-athletes. Such an explanation would suggest that international student-athletes, and British basketball players in particular, are unique in the factors that impact their ability to graduate.

# **Opportunities and Aspirations**

The last predictor variable of opportunities and aspirations also failed to predict the academic persistence of British basketball players. Regardless of how professional opportunities and aspirations were being perceived, it did not affect the outcome of graduation. It would seem that unlike domestic student-athletes, British basketball players are not forgoing free education opportunities in pursuit of professional basketball opportunities (Spavero et al., 2007). Likewise, regardless of whether they aspire to play professionally or not, it is not affecting whether they are retained or eventually graduate from their initial institution. The findings could suggest that British basketball players are less tempted to pursue professional opportunities, and subsequently forgo their professional aspirations, unlike domestic student-athletes. Contrastingly, the chance to leave school early to pursue professional opportunities may be unrealistic or unattainable for British basketball players. As a result, few of them can use the system for a "one and done" year, which is sometimes the case for domestic basketball players.

## **Practical Implications**

The research findings may indicate that US schools might need to consider restructuring their current support systems to better accommodate British basketball players. The research that was used to identify predictors of graduation was comprised of

domestic student-athlete samples (Johnson et al., 2013; Radcliffe et al., 2006; Richards et al., 2016; Schneider & Messenger, 2012; Spavero et al., 2007; Weiss and Robinson, 2013). However, this study's findings may indicate that the predictors of graduation that were identified might be insufficient in predicting academic persistence in British basketball players. Therefore, British basketball players may be unique, as the predictors we associate with graduation in American student-athletes do not have the same impact with the British basketball player population. As a result, US college structural support systems could be currently designed in a manner which only serves the interests of retaining domestic student-athletes rather than those coming from abroad. However, it is unclear whether such differences in predictors are similar across other international student-athlete groups, or whether it is unique to British basketball players. If graduation and retention predictors are different for international student-athletes, then cultural and structural considerations may need to be considered by US institutions so that they can provide an environment that can accommodate an ever-growing population in collegiate sport.

#### Limitations

The study was not without its limitations, and several factors need to be considered when interpreting the findings. An explanation for the current studies graduation finding was that the sample only gained participants who felt comfortable with their experiences or had graduated. Participants were made aware beforehand as to what the questionnaire was assessing, and therefore those that had negative experiences within the US may have chosen not to participate. Research from Arfken and Balon (2011) suggests that participants with a more favorable view towards a research topic area are more likely to

participate in a study. This may explain why the results failed to correlate with the statistics rumored within the British basketball community.

The sample size also needs to be considered within the formal limitations of the study. The sample size response was significantly lower than anticipated, and this would have greatly impacted the statistical power of the results and the model proposed. To maintain as much statistical power as possible, items had to be reduced and predictor variables had to be collapsed. For example, the coach satisfaction variable could have been broken down into the four separate constructs which encompassed the construct of coach satisfaction, but the limited sample size made it impossible to do so without greatly effecting statistical power. It could be argued that the student-athletes were happy with some aspects of the coach-athlete relationship, but less satisfied with other factors that the coach had control over. These less favorable factors may have influenced their desire to stay at the institution. Therefore, future research may want to consider such an analysis if the sample size allows.

Another limitation to consider is the opportunities and aspirations scale. The created construct and the items that composed it had not been placed under intense statistical testing to determine the reliability and validity of the measurement before its use within the current study. Before undertaking data analysis, it was proposed that opportunities and aspirations would be considered as two separate constructs. However, the pilot testing and results from the study indicated that opportunities and aspirations had been interpreted as the same thing. Therefore, it could be suggested that maybe athletes were perceiving professional opportunities based on their willingness to pursue such ventures. For example, an athlete may have been keen to step into a professional athletic

career, and therefore they perceived that the opportunity to do so was affordable to them. Likewise, an athlete that may have less desire to pursue such a career may be more realistic in determining the number of professional opportunities available to them. If this is the case, this is something that needs to be considered by coaches and governing bodies. For example, an athlete with an elevated desire to pursue professional opportunities, and one that perceives that such opportunities are available to them, when in fact they are not, may be at risk of pursuing an unattainable career. Therefore, coaches may be put into a position where they have to assess and determine the level of realism attached to their athlete's professional goals. Furthermore, governing bodies will have to educate their coaches on the various standards of professional-level basketball so that they can make such a judgment. Further use of the opportunities and aspirations scale needs to be considered on all basketball populations to determine whether this is the case for all basketball players, or whether it is specific to the British basketball population. Likewise, research should continue to assess the reliability and validity of the scale to determine whether it is suitable to be used to assess the two separate constructs that were originally proposed.

A potential limitation may exist in terms of how the questions were framed. The questionnaire that was created asked only Likert scale questions which were related to initial freshman year experiences at the US school that first recruited them. It could be suggested that participant experiences changed over time which impacted their desire to stay at the university. One example of which could be a coaching change. For example, the questionnaire only asked participants to answer questions related to experiences with the coach that recruited them. However, if a coaching change had occurred this may have

impacted their desire to stay or leave the institution. Therefore, future research must find ways to investigate how changes throughout a student-athletes' collegiate lifespan influences their academic persistence.

The academic preparedness scale also could be considered a potential limitation within the study. Regardless of the face validity achieved for our scale, there is still some debate over the comparison of BTEC and A-level qualifications, and whether one is better suited to prepare students for university-level work. An article from Holford (2017) suggested that BTEC students may struggle with university-level coursework in comparison to those with traditional A-levels. This would suggest that A-levels prepare students better academically for the increase in demands experienced when transitioning to university studies. In the US, it is much easier to determine an academic preparedness variable with nationwide GPAs and standardized test scores. This is not possible in the UK due to the various qualifications afforded to high-school students. Future research may want to consider comparing the two qualifications on their ability to predict future academic outcomes on British student-athletes.

The final limitation considered was the recall element of the study. The questionnaire was designed so that athletes would have to remember their past experiences. This may have affected the validity of the results as the athletes could have misremembered or changed their perspectives on their experiences with time.

#### **Future Research Considerations**

The findings would indicate that there are potential differences between predictors of graduation in domestic student-athletes and British basketball players. Therefore, it may be of interest to consider whether such differences exist between domestic student-

athletes and other international student-athlete populations. This would help researchers determine whether the current predictors associated with graduation are built on assumptions made from research using American student-athletes, and therefore are unique to the US student-athlete population. Likewise, it could help determine whether predictors differ for all international student-athlete populations, or indicate whether the current research's findings are unique to just the British basketball player population.

In regards to research considerations involving the current research population, the possibilities for future studies using US-based British basketball players are endless. Research has yet to investigate the driving factors which motivate British basketball players to seek out opportunities in the States. Likewise, little is known about the information and support provided to British basketball players as they seek out and transition to a US institution. From a professional opportunities and aspirations perspective, it may be interesting to determine whether competing at one of the US collegiate levels improves the chances for British basketball players to gain professional contract employability. This would help British basketball governing bodies determine whether the US route is the most effective way of producing elite British basketball players. However, just based on the current research findings alone, a qualitative study should be conducted using in-depth interviews to further add to our knowledge of the link between British basketball player experiences and academic persistence. This would allow us to gain greater insight into the experiences had by British basketball players in the US, which may identify other factors that have contributed to a lack of academic persistence.

One element that was not taking into consideration within the current model was the component of assimilation. It could be suggested that an impacting factor on

international student-athlete experiences within US college environments could be the structures which contribute towards assimilation. A study from Andrade (2006) investigated international student persistence and suggested that several areas may contribute towards international student retention and graduation. Several of the areas noted as contributing factors to academic persistence were the concepts of cultural change and the academic demands placed upon students in the US. There is currently no research in place which links assimilation to international student-athletes per se; however, the findings from Andrade's (2006) research could be potentially generalized to that population. Research from Pierce, Popp, and Meadows (2011) indicated that international student-athletes face many challenges in adjusting to coursework, dorm life, food, cultural expectations, coaching, and style of play in the US. Furthermore, the research of Sato et al. (2011) lends further support to the concept of assimilation in its ability to impact international student-athlete experiences. It was indicated that international studentathletes might struggle to assimilate at historically black US institutions due to various factors that differ from their own countries and contribute towards feelings of marginalization (Sato et al., 2011). The findings from that research may not necessarily link assimilation to graduation or retention; however, one may suggest that it could impact whether an international student-athlete wants to continue studying at that institution.

The cultural differences that exist across US regions may also present assimilation issues for international student-athletes. The current US international student website suggests that major cultural and historical differences exist between US regions, and these need to be considered by international students when applying to US schools as it may affect their experience (International Students, n.d.). For international student-athletes,

such a decision may not exist and therefore they will often decide to attend a US school in a region that may not be suited to them culturally. Therefore, it could be hypothesized that some international student-athletes may be better suited to one US region over another. It is therefore important that any future research on this current population takes into consideration the concept of assimilation and how it impacts graduation and retention. Furthermore, research should consider the potential differences which may exist between different US regions and whether region-based factors can impact the overall international student-athlete experience.

### **Conclusion**

Although the study was unable to identify any predicting factors of graduation for the population, the research could indicate that a retention and graduation issue may exist for British basketball players that migrate to the US. Likewise, the research indicates that the predictors formally proposed to predict graduation may be insufficient in predicting the same outcomes for international student-athletes. Some may suggest that graduation and retention failures are an issue for British basketball player development, as well as for the US schools that recruit them. Others may argue that the life experiences gained from the transatlantic journey override that of any academic or basketball achievements accomplished. Future researchers should continue to expand upon this research and investigate factors that may be unique and impact academic persistence for international student-athletes. Likewise, it is important to expand outside of graduation specific research and learn more about the experiences had by British basketball players on US college campuses. The current study becomes the first opportunity to learn about such a

unique group and opens the door for future discussions surrounding the British basketball population in the US.

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