**THE DISSERTATION COMMITTEE FOR PAUL ANTHONY ROBBINS CERTIFIES THAT THIS
IS THE APPROVED VERSION OF THE FOLLOWING DISSERTATION:**

**THE ACADEMIC SOCIALIZATION AND PROFESSIONAL SPORT EXPECTATIONS OF
COLLEGE ATHLETES**

Committee:

Keisha L. Bentley-Edwards, Supervisor

Kevin Cokley

Louis Harrison

Marie-Anne Suizzo

Jeffrey Stone

THE ACADEMIC SOCIALIZATION AND PROFESSIONAL SPORT EXPECTATIONS OF

COLLEGE ATHLETES

by

PAUL ANTHONY ROBBINS, B. S.

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Dedication

This is dedicated to my past, present, and future family. I appreciate your help getting me to this point, and I intend to make sure it is only the beginning.

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THE ACADEMIC SOCIALIZATION AND PROFESSIONAL SPORT EXPECTATIONS OF

COLLEGE ATHLETES

Paul Anthony Robbins, PhD

The University of Texas at Austin, 2015

Supervisor: Keisha L. Bentley-Edwards

Abstract

Objective: In this dissertation the differences between NCAA athletes and other college students who participate in sports at various levels (i.e., club sports and intramural) were examined. The effects of different types of academic socialization received and the primary source of these messages on grade point average and professional sport expectations were also studied. The weekly hours spent on school and sports during the season and offseason were tested as potential mediators of the relationship between professional sport expectations and grade point average.
Method: The sample consisted of 448 college students (NCAA = 122, Club = 104, Intramural = 119, No Sport = 103) ranging from age 18-25. Participants self-reported GPA, professional sport expectations, athletic identity, weekly time spent on school/sports during the season/offseason, academic attainment aspirations/expectations, academic involvement, educational encouragement, the value of education, and most influential socializer of academic messages.
Results: NCAA athletes reported greater academic involvement by others, but had lower GPAs than the other students. They also reported academic counselors/mentors and parents/family as their two primary socializers, while students from the other groups indicated parents/family as their only primary source of socialization, as they relied on themselves second most. Also, weekly time spent on sports during the offseason was found to significantly mediate the negative relationship between professional sport expectations and grade point average.
Conclusions: The academic experience of NCAA athletes is different from all other students on campus. Collaborating with others on campus to help athletes explore other avenues for future success can lead to less emphasis on playing a professional sport and more academic success. This would be beneficial considering so few NCAA athletes end up having successful pro sport careers.

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CHAPTER 1

Introduction

As former NFL running back Emmitt Smith once said, "I have been a Cowboys fan since I was a little bitty boy and my dream has finally become a reality, of not only […] becoming a professional athlete, but playing for the team that I always wanted to play for (Brown, n. d.)." From the time many athletes are children, they are being taught to want to play sports for as long as they are able to play. For many, the goal is to be a starter on their recreational team, then to make the middle school team, then the high school team, then to receive a scholarship to play in college, and maybe even play at the professional level. The plan seems simple, because climbing the sports ladder provides athletes with many social, educational, and financial opportunities. Since a miniscule number[1] of young athletes will go on to play at the professional level, playing at the collegiate level will be the final stop for those who are skilled enough to even make it that far. For college athletes, participating in sports at the collegiate level can provide an opportunity to attend college at reduced rates or for free. With this educational opportunity comes the challenge of balancing elite level sports with academic rigor. *This dissertation will examine the socialization messages that college athletes receive about their education and the impact that those messages and professional sport expectations have on academic performance*.

The most athletically prestigious college-level athletic association in the United States is the National Collegiate Athletic Association (NCAA). The NCAA prides itself

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[1] In 2013, the NCAA estimated that around 0.06% or 6 out of every 10,000 high school senior athletes would get drafted to play either football or basketball at the professional level (NCAA, 2013).

in providing its student-athletes with the resources necessary to succeed during athletic competition and in the classroom (NCAA, 2014). The NCAA is the most widely publicized association in all of collegiate sports, which has provided its athletes with the highest public exposure and its member institutions the greatest revenues in all of college sports. The NCAA and its member institutions have had a great deal of success generating money from televising and marketing their athletes' athletic talents (Whiteside, Hardin, & Ash, 2011), but have been criticized for putting little emphasis on academics and failing to share their financial benefits with their athletes (Beamon, 2008; Van Rheenen, 2013).

The NCAA has defended itself by claiming that student-athletes graduate at higher rates than other students (NCAA, n. d.) and by reminding the general public that student-athletes are amateurs, who are supposed to treat education as a primary focus. In other words, *those at the NCAA and its member institutions believe that they provide athletes with educational opportunities, and that it is the responsibility of the athletes to take advantage of their privileges*. Some question whether the combination of athletic policies and expectations make it too difficult for all athletes to be academically successful (L. Harrison, Sailes, Rotich, & Bimper, 2011). While others wonder whether the individuals surrounding student-athletes place such emphasis on excelling at athletic tasks, that their feedback knowingly or unknowingly steers student-athletes away from fulfilling their academic obligations (Bimper, L. Harrison, & Clark, 2013).

Placing all of the blame on the NCAA and its member institutions and forcing them to change their policies might resolve some of the academic and post-athletic career

issues that effect many NCAA athletes, but their macro level policies are only a part of the problem. There are many micro-level contributors at universities who have an impact on the way the student-athletes view academics, athletics, and themselves (Beamon, 2008; Comeaux & C. Harrison, 2007; Killeya, 2001). These people either directly or indirectly influence athletes' priorities, expectations, aspirations, and daily activities. By encouraging or discouraging specific behaviors, others are able to communicate what they deem acceptable or unacceptable actions for a college athlete. This transmission of advisory messages pertains to the athletic domain, but it also affects the academic realm. Simply put, student-athletes receive messages about the importance of athletics and academics from others in their lives, such as parents, peers, teachers and their community.

Additionally, many athletes enter college with deeply engrained priorities, expectations, and aspirations. Most first-year college athletes have already spent time in high school identifying with their athletic role. By the time they reach college, it is plausible that young athletes' academic dispositions have already been shaped by their own intrinsic motivations as well as by the motivations of those whom they interact. What this means is that when student-athletes are still in high school, they are already forming athletic and academic habits, some of which may focus more on attempting to realize athletic expectations and aspirations than academically based dreams. It is likely that these athletic expectations will interfere with academic outcomes, as they may dictate how these young athletes spend their time in school and out of school. Of course, these choices can impact how others perceive and treat the athletes, how the athletes

perceive and project their identities, and eventually their outcomes. Again, the messages that student-athletes receive about academics and themselves prior to arriving on a college campus can be a catalyst for their over-emphasis on college athletics.

There are additional factors that may shape others' actions toward athletes and athletes' perceptions of themselves. Many of these factors have implications for academic outcomes during both high school and college. An example of one such factor is socioeconomic status, which can influence anything from neighborhood factors (Francois, Overstreet, & Cunningham, 2012) and cultural capital to (Eitle & Eitle, 2002) educational outcomes (Charles, Roscigno, & Torres, 2007). This can have a major impact on the absence of home, school, and community resources that aid in academic excellence, which could become problematic in cases where student-athletes are left academically unprepared. Struggling to find academic success in college might cause a student-athlete to look for success elsewhere (i.e., athletics). If this happens, student-athletes might begin to identify less with their roles as students, and more with the role of an athlete. This may be especially true for those who have come from schools and families with fewer resources, (Settles, Sellers, & Damas, 2002).

For some athletes, another influential factor that might ultimately affect academic performance is perceived racial group membership. This effect is indirect, as racial appearance may determine the ways in which others stereotype student-athletes (Hall, 2002; Sailes, 1993; Stone et al., 1997), as well as the ways in which athletes stereotype and identify themselves (Cokley, 2002; L. Harrison, Lee, & Belcher, 1999). Those who adhere to stereotyped thinking might believe that certain types of people were born to be

good students or athletes, while others were not. The existence of this type of thinking in our schools has been shown to have an impact on the athletic performance of some and the athletic performance of others (Stone, Lynch, Sjomeling, & Darley, 1999). Also, socializers and athletes who believe and perpetuate society's athlete stereotypes may behave in ways that further communicate the idea that athletes are not capable students. These factors may directly or indirectly contribute to lower academic expectations or performance for athletes in high school or in college.

As may be obvious from everything above, it would be difficult to determine exactly who or what is responsible for what many believe is an over-emphasis on college athletics. But at least two things are certain: *it matters what student-athletes think about academics and it matters what messages others are communicating to student-athletes about academics*. It is also important to know whether others are reinforcing unbalanced or unrealistic expectations that may be harmful to student-athletes. Considering the recent academic scandal at a major institution (Wolverton, 2014) that allegedly involved various stakeholders like athletes, support staff members, professors, and coaches, it is clear that there are many whose influences on the academic outcomes of student-athletes need to be examined. This information can be used to improve athletes' overall academic performance by determining which types of academic messages and socializers are most influential in ensuring that success. This dissertation addresses this issue by analyzing the influences of several types of academic messages and the sources of the messages on athletes' grade point averages. It also seeks to explore the potential deleterious impact of professional sport expectations on academic performance.

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Statement of the Problem

Before presenting a more detailed case about why the academic success of student athletes matter, it might be helpful if I establish a bit more context. All around the country, NCAA athletes sacrifice their time and bodies for us daily. When I say us, I am not only referring to those of us who watch college sports for entertainment, I am also talking about those of us who work at the universities who profit from athletes. When athletes do well, we all benefit. Directly or indirectly, we all endorse a system that employs universities, the media, families, fans, and others to sell unattainable dreams to young athletes who believe that this is a ticket to social mobility.

This system creates an environment where almost anyone can make money from NCAA athletes, but athletes may only get paid in education. This payment might seem fair, until you consider the fact that the NCAA athletes who compete at the highest level do not graduate from college at the same rates as their non-athlete peers. Those who play in the biggest games, with the highest expectations have the lowest graduation rates. Many of these athletes come from historically marginalized groups and financially impoverished backgrounds, and earning a degree could change the course of future generations. *Simply put, our failure to graduate NCAA athletes at no less than the same rate as their peers is not something that should be overlooked, but a matter of educational equity.* As is the case with other students, some athletes graduate while others struggle to finish. In order to address this problem, we must assess what helps athletes to be academically successful despite the athletic pressures and time demands.

As stated above, the NCAA and its member institutions have realized great profits from marketing their brand and the athletic competition of their college student-athletes. Since the athletes are not receiving a direct cash payment for their efforts, many have explored the idea that the NCAA and universities are exploiting college athletes (Edwards, 1985; Beamon, 2008; Van Rheenen, 2013). Both the NCAA and universities have defended themselves by claiming that athletes are receiving a "free education,' which is priceless in the long run. They have also argued that their student-athletes graduate at higher rates than the regular student population, and have created their own measures of academic success (NCAA, n. d.). Many scholars believe that the NCAA's version of graduation rates and success measures are deceptive, and that those who participate in the most lucrative conferences graduate at significantly lower rates (Eckard, 2010; Harper, Williams, & Blackman, 2013; Southall, 2012). This warrants an examination of academic outcomes for athletes, especially in comparison to other students and will be addressed by this dissertation.

The NCAA and its members have repeatedly refused to compensate their student-athletes, as a way to maintain their amateur status. The idea is that they are supposed to be just like any other student on campus. Aside from some athletes being easily identified on campus based on their physical build or the racial make-up of their campuses (L. Harrison et al., 2011), many athletes that participate in high-profile college sports are also nationally recognized. This sort of attention might make it difficult to be like a regular student on campus. The pressure associated with representing a university and having so many people focused on your performance is not something with which the average

student must deal. Many athletes are also expected to be athletically successful, as this may help universities recruit other students (McEvoy, 2005) or new players (Schneder & Messenger, 2012). Not to mention, if they excel and play professionally, it could financially transform the lives of athletes' family members. It is plausible that living under this immense pressure might contribute to athletes spending more time improving their athletic skills, as they might perceive that their athletic development matters to more people. Since the outcomes of some athletic competitions are less publicized than others, those students who do not participate at the NCAA level may not feel pressured to spend as much time on sports. Placing high athletic expectations on a student-athlete may influence his or her ability to live the life of a normal student. This dissertation will explore whether sensing athletic expectations dictates how college athletes spend their time, and whether this has an effect on their academic outcomes.

Aside from investigating the influence of athletic expectations on the academic outcomes of student-athletes, it is also important to gain a better understanding of who provides academic support in the midst of all of the athletic pressure. Some question whether those who are supposed to help athletes succeed academically support them superficially, as their main priority appears to be making sure that athletes are academically eligible to participate in their sport (Comeaux & C. Harrison, 2011). While determining the motivation of those who provide academic messages to athletes is beyond the scope of this study, it could be valuable to ask athletes to identify the source of these messages. Additionally, it would be beneficial to analyze how the reception of these messages and the sources of these messages influence athletes' academic

performance. In other words, we need to know who is communicating with athletes about academics and what those people are saying. This dissertation will identify if specific people and types of academic messages have a larger impact on the academic success of college student-athletes.

It is quite clear that others, such as family members, peers, coaches, professors and support staff, play an important role in shaping the lives of college student-athletes. These informants provide various ecological contributions to the worlds in which athletes operate. Family members, coaches and others help the athletes determine who they are as students and athletes and define what it means to be a student-athlete at the collegiate level. The NCAA and university representatives determine whom athletes will play against and their level of media exposure. As the limelight increases, so do the expectations that student-athletes will be prepared to play their sports on the biggest stages. But with so much of their lives being dedicated to improving athletic performance, time and encouragement to excel academically might be limited. Of course, coaches and support staff also comprise the systems that are in place to help athletes reach academic eligibility standards. The existence of these standards puts some of the focus back on the student role, but compared to other college students, those who play college sports at the highest level still experience disparities in graduation rates (Harper, Williams, & Blackman, 2013). Observing these gaps at so many universities is likely indicative of a systemic problem. Every level of this system must be explored in order to determine their role in perpetuating this educational inequity, so that the necessary supports can be implemented to ensure the academic success of student athletes.

In order to evaluate the highly contested claim that NCAA student-athletes are like any other student on campus, this dissertation will compare the types of academic messages received by multiple student groups, as well as the primary transmitter of these messages. To assess the roles of many stakeholders, this dissertation will examine the role of family, peers, professors, coaches, and academic support staff in communicating academic messages to athletes and the impact that these messages have on athletes' academic performance. This dissertation is also designed to investigate the affect of professional sport expectations on the academic performance of athletes, by way of the hours they spend each week doing athletic and academic tasks.

Theoretical Framework (PVEST)

Since the creation of Bronfenbrenner's (1979) ecological systems theory, many scholars have produced models that place emphasis on examining how interacting within various contexts can influence an individual's development. One such model is Spencer's (1995) Phenomenological Variant of Ecological Systems Theory (PVEST), which can be used to examine the cyclical nature of the contextual influence on identity development adolescents. In this dissertation, the model will be utilized to help gain insight into the ways in which we may socialize high school and college athletes to be less invested in their own academic futures than their peers, and how surrounding them with socializers who treat athletes as though they are expected to be inferior students and future professional athletes may negatively impact their chances at academic success.

For student-athletes (see *Figure 1*), the model begins with the contextual factors that may support or impede the positive development of student-athletes (e.g.

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intelligence, family income, school environment, neighborhood factors, athlete status); this level is referred to as the *Risk and Protective Contributors* level (Bentley-Edwards & Adams-Bass, 2013). The risk contributors are the characteristics that may eventually lead to negative outcomes, while the protective contributors are factors that typically lead to positive outcomes (Lee, Spencer, & Harpalani, 2003). Protective factors are able to compensate for certain risk factors, which determines whether a person is still at risk for negative outcomes.

The combination of these contributing factors leads us to the next level for the model, which is *Net Stress Engagement*. This level consists of situations that may cause conflicts and the protective factors that defend against those situations (Lee, Spencer, & Harpalani, 2003). For example, the football team has a big game tomorrow and the coach expects a football player to spend extra time memorizing the game plan. This same football player has an academically supportive teacher that monitors his progress and makes sure he has a study guide for his test tomorrow. The net stress level will depend on which force is stronger than the other force.

The football player's positive or negative responses to the aforementioned dilemma (i.e., deciding to study for the test, memorize the game plan, or split his time) are known as *Reactive Coping Strategies* (Bentley-Edwards & Adams-Bass, 2013). These types of decisions are made in order to cope with situations that have caused dissonance (Lee, Spencer, & Harpalani, 2003) and challenged the athlete's well-being. Social supports or stressors can help student-athletes make decisions that are either adaptive or maladaptive solutions, respectively.

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According to PVEST, athletes will begin to cope with dissonance using a variety of strategies, but will eventually only replicate behaviors that generate the best results (Lee, Spencer, & Harpalani, 2003). After having to repeatedly make these types of decisions about how much time to devote to academics and athletics, the football player may choose to invest his time in the activity that provides the most positive feedback. As a result of recognizing a decision-making pattern, those around the athlete begin to see him as a compilation of his decision. He also begins to see himself in a similar manner. This is known as the *Emergent Identity* level. In this example, the football player may begin to identify and be perceived by others as a "student," an "athlete," or a "student-athlete." Once the football player is placed in one of these categories, he begins to identify with group-specific behaviors and reap the positive or negative consequences that are associated with his label.

The athlete's chosen coping strategies determine how he will react in future situations and how others react to him, effectively determining his *Life-Stage Specific Outcomes* (Bentley-Edwards & Adams-Bass, 2013). This is the final level of the PVEST model. The player's identification with one or both roles of the student-athlete identity may impact his academic or athletic performance. Whether the football player yields positive academic or athletic outcomes, his contextual surroundings will change as an indirect result of his identity. Simply put, the outcomes experienced due to his chosen identity expose him to a new set of risks and protective factors, thereby restarting the cycle (Spencer, Dupree, & Hartmann, 1997; Bentley-Edwards, Thomas, & Stevenson, 2013).

This dissertation will utilize the PVEST model (Spencer, 1995) to help better understand how the risks and protective factors (athlete status, demographics, and academic socialization sources) in student-athletes' lives may put them in stress-inducing situations (others' professional sport expectations and academic socialization). These interactions force athletes to make decisions (hours spent on sport and school), which can impact their identities (athletic identity and professional sport expectations), and eventually, their outcomes (grade point average). Using this model as a foundation, this dissertation will explore how messages from socializing agents can impact how student-athletes view themselves, how others view them, and how these views can trigger behaviors that lead to desired academic outcomes for some, and unfavorable outcomes for others.

PVEST for the Student-Athlete

Risk & Protective Contributors

Socialization Sources
Demographics
Athlete Status

Net Stress Engagement

Academic Socialization
Pro Sport Expectations (Coach)
Pro Sport Expectations (Family)

GPA

Academic Outcomes

School Hours
Sport Hours

Athletic Identity
Pro Sport Expectations (Self)

Reactive Coping Mechanisms

Emergent Identity
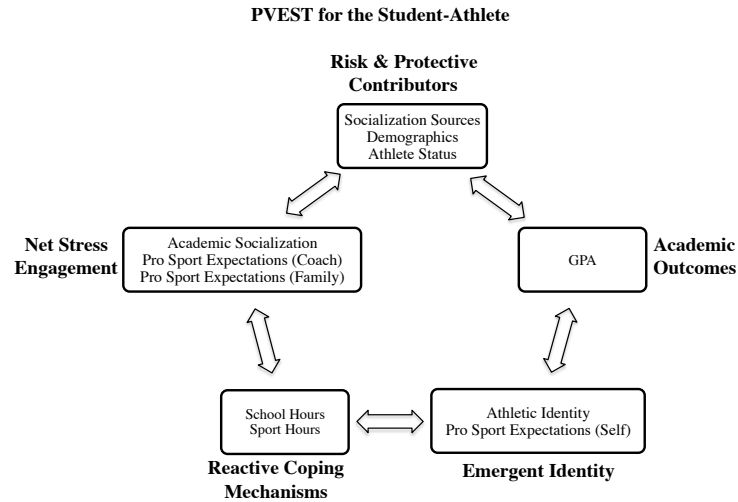
Figure 1. Phenomenological Variant of Ecological Systems Theory for Student-Athletes

Significance of Study

This dissertation is important to the body of research on student-athletes for multiple reasons. First, it uses Spencer's PVEST (Spencer, 1995) as a theoretical framework that explains how academic socialization can help to shape athletes' identities as well as their outcomes. Secondly, it makes comparisons between various college students within varying levels of involvement in athletics, in order to investigate whether these groups have similar lifestyles and interactions with socializers. This dissertation will explore some of the similar and unique challenges faced by NCAA athletes compared to other students, with regards to their identities, time constraints, expectations, academic outcomes, and interactions with various people in their lives. To date, no study has quantitatively examined current NCAA student-athletes' reports of receiving academic socialization messages and compared those results to that of their peers. Additionally, no study has investigated these athletes' reports of the primary sources of academic socialization messages. Whereas others have chosen which socializers' actions were most important to athletes, this dissertation allows student-athletes to select which academic socializer was their primary influence. While some researchers have focused on academic socialization by coaches, peers, and/or parents (Beamon, 2010; Beamon & Bell, 2006; Marx, Huffmon, & Doyle, 2008), their studies have not simultaneously addressed the impact of the range of socializers that will be assessed in this dissertation.

Another goal of this dissertation is to explore the impact of academic socialization on athletes' academic outcomes, as measured by grade point average. There has been a

multitude of research using assorted measures of academic socialization and with various populations including Black families (Suizzo, Robinson, & Pahlke, 2008), Mexican-American families (Suizzo et al., 2012; Plunkett et al., 2008), and mixed samples (Hill et al., 2004; Gibson & Jefferson, 2006; Tan & Goldberg, 2009). However, no studies have compared the impact of different types of academic socialization on the academic outcomes of athletes at various participation levels. Not only does this dissertation assess differences in the types of academic socialization athletes receive, but it also considers the unique impact of various socializing sources on the academic performance of participants. This is one of the many unique facets of this dissertation.

This dissertation also seeks to contribute to the literature on professional sport expectations. Previous studies have explored the impact of professional sport expectations on academic outcomes (Beamon & Bell, 2002; Davis, 2013), but none have examined the effect of academic socialization on professional sport expectations. Additionally, this dissertation will be the first study to investigate whether receiving more academic socialization messages from certain sources can predict higher or lower professional sport expectations. It will also be the first to use a structural model to assess whether the number of hours spent on school during the season and sports during the offseason mediates the effect of professional sport expectations on grade point average.

Another significant aspect of this study is that it seeks to contribute to the literature on influences of Black NCAA athletes' academic outcomes. It attempts to examine racial group differences and similarities in NCAA athletes' identities, the time they devote to athletic and academic endeavors, and their professional sport expectations,

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as well as the types of academic socialization messages they receive and their reported sources of those messages. This dissertation attempts to shed light on some of the factors that contribute to and detract from the academic performance of athletes at various participation levels, but especially those who are Black and/or participate at the NCAA level.

Research Questions

This dissertation seeks to make quantitative comparisons in the academic socialization of college students who participate in athletics at various levels. Another goal is to use a variety of research questions to gain a more thorough understanding of the unique experiences of athletes who participate at different levels, but primary those who participate at the NCAA level. These questions explore the impact of academic socialization and professional sport expectations on academic performance. The initial questions make large between-group comparisons, but as they progress, the questions attempt to make more specific within-group comparisons.

The first sub-questions ask whether students are academically socialized differently based on their athletic participation. The questions are as follows: (1) a. *Based on athletic participation (NCAA athletes, club athletes, intramural athletes, and non-athletes), are there group differences in the types of academic socialization reported?* and b. *Does each group rely on the same primary socializer for educational encouragement, academic involvement, and beliefs about the value of education?*

The next sub-questions inquire whether all types of academic socialization messages predict similar outcomes, regardless of students' athletic participation levels. I

will use these questions: (2) a. *Does each type of academic socialization predict grade point average in each participation-level group?* and b. *Does each type of academic socialization predict professional sport expectations in each participation-level group?*

The next sub-questions examine whether receiving more frequent messages from specific sources of academic socialization impact students the same, regardless of athletic participation level. I will ask the following questions: (3) a. *Does the frequency of messages received from each socializing source predict grade point average?* and b. *Does the frequency of messages received from each socializing source predict professional sport expectations?*

The remaining questions will exclude those who do not participate in school-sanctioned sports. The next set of sub-questions will compare the athletic identities, the amount of time spent on sports/school, and professional sport expectations, as well as the impact that each of these elements have on athletes' academic outcomes. I will do so by asking: (4) a. *For college athletes (i.e. NCAA, Club Sport, and Intramural athletes), are there participation-level differences in athletic identity, the amount of time spent on sports/school, and professional sport expectations?* and b. *For college athletes (i.e. NCAA, Club Sport, and Intramural athletes), do athletic identity, the amount of time spent on sports/school, or professional sport expectations predict grade point average for each participation level?*

The next question explores whether NCAA athletes' professional sport expectations and the number of hours they spend on school/sports impact their grades. To do so, I will ask: (5) *For NCAA athletes, do the number of hours spent on school during*

the season and sports during the offseason mediate the relationship between professional

sport expectations and grade point average?

The final two sets of sub-questions will be used to assess group differences within the subsample of NCAA athletes. The first set of sub-questions will assess racial and gender differences between groups of NCAA athletes. These questions are: (6) a. *For NCAA athletes, are there racial group differences in the types of academic socialization reported or the amount of time spent on school/sports during the season and offseason?* b. *For NCAA athletes, are there racial group differences in athletic identity, professional sport expectations or grade point average?* c. *For NCAA athletes, are there gender differences in the types of academic socialization reported, the amount of time spent on school during the season/offseason, or grade point average?* and d. *For NCAA athletes, are there gender differences in athletic identity, weekly time spent on sports, or professional sport expectations?*

The first set of sub-questions will assess racial differences between groups of NCAA athletes. These sub-questions will explore whether receiving messages from any of the sources is able to predict GPA or pro sport expectations: (7) a. *For Black and White NCAA athletes, does the frequency of messages received from each socializing source predict GPA?* b. *For Black and White NCAA athletes, does the frequency of messages received from each socializing source predict professional sport expectations?*

Organization of the Study

Introductory background information, a statement of the problem, an explanation of the theoretical framework and the study's significance, and an introduction to my

research questions composed Chapter 1of this dissertation. Chapter 2 will include a review of relevant literature about high school and college athletes related to: sport participation outcomes, educational aspirations and attainment, academic performance, professional sport expectations, racial and athletic identity, athlete stereotypes, academic socialization, and the transmission of messages from socializing agents. Chapter 3 will outline the research methodology, as well as the procedures for data collection and analysis. A primary goal of the analysis is to explore potential differences in reported academic socialization and sources of that socialization, as indicated by students who participate in sports at various levels. With this analysis, I also hope to investigate other possible differences in the collective experiences of these groups in regards to professional sport expectations, athletic identity, and the amount of time they devote to school and sports. I will also examine possible race and gender group differences within the group of NCAA athletes.

CHAPTER 2

Review of Relevant Literature

High School Athlete Educational Aspirations and Attainment

       Educational aspirations. Many scholars believe that participating in high school athletics has an impact on educational aspirations. Some researchers think that this effect is positive (Crosnoe, 2002; Miller, Melnick, Barnes, Farrell, & Sabo, 2005; Rees & Sabia, 2010; Snyder, 1975), while others feel that the influence of sports participation is negative (Dawkins, Braddock, & Celaya, 2008; Lee et al., 2011).

       Rees and Sabia (2010) found that high school athletes receive better grades, and have higher educational and occupational aspirations than those who do not participate. Perry-Burney and Takyi (2002) found that not only does participation in team sports increase the self-confidence of girls, but also it also improves GPA and the desire to attend college. And according to Crosnoe (2002), athletes are more likely to aspire to attend college, than are non-athletes. These benefits are likely the result of an increased exposure to post-secondary educational opportunities, in the form of athletic scholarships. Also, student-athletes who play basketball or football likely realize that in order to make it into the professional ranks, attending college for one to three years is essentially a league mandate. This realization could be the reason that many students, some of who never considered college as an option before, now see it as a necessity for reaching their future career goal of becoming a professional athlete.

       Not all researchers consider high school sports a good way to boost educational aspirations. Dawkins, Braddock, and Celaya (2008) believed that for some student-

athletes, interest in academics decreases, as do their educational aspirations. In these cases, athletics are seen as a top priority, and academics are seen as a potential detractor from a future career as a professional athlete. They also suggested that these athletes might only aspire to reach the amount of education required to continue playing their respective sports, but not enough to receive proper career training. Another study found that there were increased aspirations for adolescent Black males compared to others, but these aspirations were not academic, but instead the aspiration to become a professional athlete (Lee et al., 2011). These findings can be seen as evidence that not all student-athletes benefit from their participation in the same manner.

   Educational attainment. Participation in high school athletics has also been linked to differences in educational attainment. Miller et al. (2005) and Pearson, Crissey, and Riegle-Crumb (2009) found that participation in high school athletics predicted greater post-secondary attendance. Student-athletes not only attend college at a higher rate, but they also graduate from college at a higher rate than non-athletes (NCAA, 2012b). Again, these benefits depend on the individual student and his or her dedication to being prepared for the academic challenges that one might face in college. Students who lack academic motivation in high school are likely to feel the same way about college. This lack of motivation can lead to college student-athletes that are underprepared (Zeiser, 2011), and therefore less likely to finish college.

College Athlete Educational Aspirations and Attainment

   Educational aspirations. Student-athletes enter college thinking that they will be able to balance the difficult role of being a student and an athlete. One study found that

freshmen idealistically believe that they will somehow reconcile these two competing roles (Marx, Huffmon, & Doyle, 2008). Bimper, L. Harrison, and Clark (2013) found that some students who are successful at being a student and an athlete view education as a tool for social mobility and plan to use that as their way to a successful future. Gaston-Gayles and Schuh (2005) also found that many athletes have high academic aspirations, but suggested that these athletes may lack confidence in their ability to succeed in the academic realm. This may be due to a number of factors that are to be discussed later, including others' treatment and expectations of them, a lack of college preparation, and various time constraints. Athletes' busy schedules and other environmental factors may stifle their educational and career aspirations, by giving them little time or space to develop in these spheres (Cox, Sadberry, McGuire, & McBride, 2009). Some may also be limited by contextual factors such as learning disabilities or financial strains that have followed them from high school to college. As a result of these factors, those from neighborhoods with lower resources are less likely to achieve at the academic level to which they aspire (Boxer, Goldstein, DeLorenzo, Savoy, & Mercado, 2011). Athletes from these backgrounds may be more cognizant of the barriers that can prevent them from living out their academic dreams.

Educational attainment. According to the NCAA (2012b), their Division I athletes' overall graduation rates are higher than those of their non-athlete counterparts. Their assertion is correct, but does not paint an accurate picture of exactly which athletes are and which are not graduating. From 2007-2010, Black male athletes who participated

in basketball or football at "Power 6"[2] conference schools graduated at rates that were significantly lower than those of other Black males, other student-athletes, and all students on their respective campuses (Harper, Williams, & Blackman, 2013). Additionally, comparing student-athletes' graduation rates to those of the general student body may not be a fair comparison, when one takes into account that general graduation rates tend to include a substantial number of part-time students (Eckard, 2010). Since the NCAA requires athletes to be full-time students, this comparison of dissimilar populations is not entirely fair. Claiming that student-athletes graduate at higher rates than others makes it appears as though athletes are not greatly impacted by their athletic demands. Many student athletes find it difficult to balance these demands, and this hinders their educational attainment capabilities (Beamon, 2008). In summary, plenty of athletes are graduating but certain athletes are not; participating in sports does not appear to make graduation easier.

Academic Eligibility and Maintenance

No-pass/no-play in high school. There does not exist a national set of rules that uses academic performance in order to determine the athletic eligibility of high school student-athletes. Many states and districts, however, have implemented their own academic standards, most of which include a "no-pass/no-play" rule. These rules set a bar, and if a student's grades drop below that level, they are not allowed to play (Jordan, 1999). It would be difficult to ignore the problems that can arise from holding student-

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[2] These schools are from one of 6 major conferences, which include: the ACC, Big East, Big Ten, Big 12, Pac-12, & SEC. They have accounted for all college football and basketball national championships since 1989 and 1991, respectively (Harper et al., 2013).

athletes to different academic standards based on geographic location, if there were not an even larger problem with many of these policies. While each policy is supposed to be designed to serve the needs of the student-athlete, most seem to have loopholes that create an environment that promotes simply maintaining eligibility and appears to say to young athletes, that they only need to jump the academic hurdle so they can get back in the game. So, not only are these programs filled with various dissimilarities, they may also be harmful to those for whom they have been designed to help.

An example of the differences between league-created academic standards can be found in a comparison between the academic requirements set forth by the athletic leagues in two of the most populous states in the country: Texas and California (see UIL, 2012 and CIF, 2012 for complete requirements). In both cases, the ambiguity of the language communicates a message to coaches and administrators that these policies are flexible for those who are willing to interpret the rules in their favor. It also communicates to student-athletes that it is fine to achieve just enough to play, even if that is not enough to graduate. For some, these rules may inform the future disposition of athletes toward or away from academic engagement.

Those are just two examples of potentially harmful policies that may send the message that only expect our athletes to be minimally involved in the classroom. One has to wonder how many states have questioned the effectiveness of these policies, and whether or not they actually benefit the student-athletes in the long run. These rules are good, in theory, but according to Burnett (2000), these policies have prodigiously affected poor, Black males at a higher rate than anyone else. Another way these rules can

be injurious is their potential for preventing student-athletes from taking academic risks that might benefit them in college. For example, athletes might feel apprehensive about taking challenging classes that might threaten their academic eligibility (Burnett, 2000). Many parents and coaches discourage their student-athletes from taking academic risks, making athlete enrollment in rigorous courses even less likely. Many Black high school athletes enter college less academically prepared than their White counterparts (C. Harrison, Comeaux, & Plecha, 2006). The fact that these policies and significant adults socialize student-athletes to avoid valuable advanced college preparatory classes may partially explain this finding and the differences in NCAA graduation rates.

Initial NCAA eligibility. Academic eligibility requirements do not end in high school, and in fact, they become more advanced at the college level. The NCAA has its own uniform set of rules for future Division I and II athletes. In order to gain initial eligibility into an NCAA athletic program, a prospective athlete must complete a minimum of 16 high school core courses (only 14 for Division II), earn at least a 2.0 grade point average in core courses, and earn a qualifying SAT or ACT score. For Division I athletes, required SAT or ACT scores are based on a sliding scale. A student-athlete with a 3.0 grade point average would be eligible to compete in the NCAA with a minimum SAT score of 620 (Math and Verbal scores only) or a sum of 52 across all four section of the ACT. Division II athletes do not use the sliding scale, so they all must score at least an 820 on the SAT or earn a sum of 68 on the ACT (NCAA, 2012a; NCAA, 2012c).

Meeting the academic minimums for NCAA eligibility can leave a student-athlete academically vulnerable, especially when these athletes are compared to the average student. The University of Texas at Austin and The Ohio State University in Columbus are two of the largest state schools in the country, the state flagship institutions, and both have Division I athletic programs. At both universities, approximately 90 percent of their incoming first-year students graduated in the top quarter of their high school graduating class (The Ohio State University, 2012a; The University of Texas at Austin, 2012a). The average incoming first-year student at the Austin campus scored a 1240 on the SAT or had an ACT sum score of 108 (The University of Texas at Austin, 2012a). On the Columbus campus, the numbers were 1243 on the SAT and 112 on the ACT (The Ohio State University, 2012b). When you look at these numbers, the NCAA minimums do not seem to be putting their student-athletes on a level playing field. I am not saying that all athletes score at the minimum – given the heterogeneity of the athlete population, it is highly unlikely that even most do -- but it would be ambitious for one to expect those athletes who only meet the minimum requirements to find the time to catch up to their peers academically, given their athletic requirements.

Maintaining NCAA eligibility. Once they are in college, student-athletes are expected to meet academic standards that require them to pursue a degree (NCAA, 2011). Division I athletes are required to complete 40 percent, 60 percent, and 80 percent of degree coursework by the end of their second, third, and fourth years, respectively. They must also earn six or more credit hours each term, and maintain a grade point average

that is inline with that which is required for graduation from their respective institution (NCAA, 2011).

The NCAA's requirement that Division I student-athletes maintain at least the GPA necessary for graduation shows that they have some sense of what should be their ultimate goal for their athletes. The problem is that they have not addressed the potential pitfalls that are likely to occur in a system that does not require athletes to be closer to graduation. Athletic scholarships are one-year contracts that can be renewed for four years of eligibility. If an athlete has complied with all of the NCAA minimum requirements to maintain academic eligibility (i.e. he or she has completed 80 percent of the coursework required for a degree), his or her athletic eligibility would expire before the athlete completes the coursework necessary to graduate. At this point, a coach can choose to use one of the limited scholarships on a student-athlete who is no longer eligible to compete, or they can give this scholarship to an incoming recruit. These low requirements set up a system where athletes can be used for their athletic talents and discarded, without ever receiving the degrees that they were promised.

Division II athletes have a slightly different set of academic requirements. They must earn at least 24 credit hours toward a degree each academic year. Their required grade point average is a little less stringent, with student-athletes needing a 1.8, 1.9, and 2.0 cumulative GPA at 24, 48, and 72 earned credit hours, respectively (NCAA, 2011). If a non-athlete were to earn a GPA below 2.0 for each of their first two years, they would likely be put on academic probation and then kicked out of school, yet the NCAA finds it

acceptable to set student-athletes' academic requirements below standard university requirements.

There are definitely some positives for setting eligibility requirements. For one, eligibility makes student-athletes and schools relatively accountable for their grades. Also, these requirements cause students to become more invested in their own academic success (Crosnoe, 2002). Eligibility requirements set a bar at which student-athletes can aim, otherwise, they will lose their ability to participate.

It would be irresponsible for the NCAA to completely remove academic requirements but it is important to point out some of the potential negative consequences of the systems that are currently in place. These systems encourage the view that academics and athletics are in competition (Dawkins, Braddock, & Celaya, 2008), because the only way to be allowed to excel athletically is to get over the academic hurdle that is eligibility. For some athletes, there would be no, "learning for the sake of learning," or learning in order to improve future standing. Instead, learning becomes something that has to be done, but only well enough to maintain eligibility. For borderline students (and some coaches), this may encourage cheating (Burnett, 2000), rather than a genuine drive to earn an education.

There are also issues with the current academic requirements, as outlined by the NCAA. By using vague language like "coursework required for a degree," (NCAA, 2011) the NCAA has left a loophole that can easily be exploited by anyone who is looking to simply keep a student-athlete eligible. If there is not a focus on making sure that students are earning credit toward the degree of their choosing, they can easily be

scheduled for any classes, so long as the majority of classes are not remedial. Some student-athletes are not given a choice, and are instead guided toward majors with less rigorous requirements or majors that have classes or internships that do not conflict with their athletic schedules. This leaves many student-athletes, especially those from revenue-producing sports, with a lack of job training and a degree in a field in which they are not actually interested in building a career (L. Harrison, Sailes, Rotich, & Bimper, 2011).

Also, allowing a student to be funded for five years, while only allowing them to compete for four years creates a disadvantage for students who do not redshirt, because the university has no incentive to make sure that they graduate in their fifth year, since they are no longer able to compete. The fact that the NCAA only requires 80 percent degree completion by the end of an athlete's fourth year gives the appearance that stopping at that point would be perfectly acceptable. This message would be especially harmful to an athlete that is only attending school for the opportunity to participate in college athletics. One might say that the NCAA is making it easy to compete without ever having to worry about graduation, and that would socialize student-athletes to believe that this is an acceptable academic outcome.

Season and offseason academic performance. Student-athletes have access to academic support personnel who are tasked with helping them navigate their academic and athletic requirements. These staff members are very involved in making sure that athletes maintain their grades while they train, travel, and compete for their respective

schools[3]. Many of those involved in athletics believe that the support of these personnel and the structure of the athletic season will inevitably translate to higher grades for athletes during their competitive season (Scott, Paskus, Miranda, Petr, & McArdle, 2008). It is assumed that having someone there to monitor athletes frequently and supervise them as they move between practice, classes, and study hall provides them with the discipline and structure that they lack during their offseason. The PVEST framework (Spencer, 1995) can be utilized as a way in which to view the comparison between in-season and offseason academic performance (see *Figure 1*). Many believe that the value of having an academic support system and the structure it provides to athletes during their season serves as a protective factor that outweighs the risk of committing so much time to sports on academic outcomes. The idea is that these support structures are strong enough to improve athletes' academic performance, and this is especially true when athletes are operating inside of the protective athletic bubble that is the athletic season.

Since there is a dearth of research on this topic, I could not find a study that supported this claim. However, in the only study that examined differences in college athletes' GPAs during and outside of the season of play, Scott et al. (2008) found that a large set of Division I athletes actually had lower GPAs during their respective athletic seasons than they did during the offseason. In other words, the structure did not provide enough scaffolding to protect athletes from getting lower grades during the time of year when athletics takes up a significant portion of their time, as compared to the time of the

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[3] For a strong example of an academic support program designed to assist student-athletes in multiple areas of their academic lives, see the website for Stanford University's program for advising student-athletes: https://undergrad.stanford.edu/advising/about-advising/advising-student-athletes

year when they are not playing their sport. This gap was even wider for those male athletes who participated in high profile sports and those who came to college with low academic preparation in high school (Scott et al., 2008). Many Black male student-athletes fit into at least one of those categories, which may be another partial explanation for the gap between Black athlete graduation rates and the rates of everyone else. Forcing or allowing student-athletes to spend excessive hours enveloped in sports can impact their ability to perform up to their academic potential even when they are provided with people who help them manage their time. This dissertation seeks to add to the literature on the effects of sport participation on the academic outcomes of athletes by examining the impact that spending more hours on school during the athletic season and more hours on sports during the offseason have on the grade point averages of NCAA athletes.

Academic Expectations

Various socializing agents use a variety of methods to communicate academic expectations to students of all ages (Suizzo et al., 2012; Charles, Roscigno, & Torres, 2007; Simons et al., 2007; Benner, & Mistry, 2007). In a study by Suizzo and colleagues (2012) adolescents were more likely to have high academic expectations for themselves if their parents conveyed high expectations for their educational attainment. For these students, these higher expectations also translated to higher GPAs. Another study found that high parental expectations for young children were linked to parental investments in education, which was linked to a greater likelihood that the children would eventually graduate from college (Charles, Roscigno, & Torres, 2007).

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These expectations can also come from sources other than parents. One study found that mothers' and teachers' academic expectations worked together to influence children's academic beliefs about themselves and their academic outcomes (Benner, & Mistry, 2007). As is the case with parents, teachers may view and treat students differently, based solely on their expectations of students' ability (Chang & Demyan, 2007; Tenenbaum & Ruck, 2007; Rothbart, Dalfen, & Barrett, 1971). Since parents and other adults are able to transfer their academic expectations to children, having low expectations can be detrimental, as this may convey the message that the expectations are based on either a lack of ability or a lack of necessity. This would be extremely problematic for high school athletes, as they may be branded with lower academic expectations, which they may internalize and turn into their *emergent identity*. There is a gap in the literature about whether high school athletes internalize low academic expectations in the same way as their peers; however, this exploration is beyond the scope of this dissertation.

Athletes who graduate high school and move on to compete at the college level may find themselves surrounded by even more people with low academic expectations for athletes. Engstrom and Sedlacek (1991) found that other students possessed negative attitudes about student-athletes' ability to perform well academically. Athletes' peers expect them to be less capable students and treat them as if athletes do not belong on campus. Many students feel emboldened to comment on their low expectations of athletes in the presence of athletes (Simons, Bosworth, Fujita, & Jensen, 2007). One reason athletes' peers may find this type of behavior acceptable is that their professors,

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who may also freely announce their expectations and stereotyped beliefs about athletes'
academic abilities, have been found to model these same low expectations and often treat
athletes differently based on these beliefs (Simons et al., 2007).

The study by Simons and associates (2007) also found that some professors and
students had high expectations and instead made positive comments about how hard it
must be to balance being a student and an athlete or while others positively challenged
them to do well in the classroom. Participants reported feeling better and doing better in
those classes, because they felt more like they belonged than they did when others in the
classroom made disparaging remarks (Simons et al., 2007). Thus, peers and professors
can be important sources of either positive or negative academic expectations for athletes,
and athletes may respond to and internalize others' positive or negative expectations and
treatment.

These messages may also come from those who work with athletes outside of
their classes (i.e., academic support staff and coaches). Governing athletes' lives with
academic programs that they perceive as controlling can leave athletes unprepared to
make their own academic decisions (Cox, Sadberry, McGuire, & McBride, 2009). In the
short-term it may be helpful to choose athletes' class schedules and their majors, but in
the long run it simply communicates that support staff expect athletes to be incapable of
doing this on their own and actually makes that into a reality. Coaches may communicate
the same low academic expectations when they create conflicts between academic and
athletic obligations. These conflicts can send the message that athletes' primary
responsibilities are preforming well during athletic competition. Coaches can set the tone,

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because when student-athletes believe that their coach expects them to perform well academically, it can enhance their self-efficacy and protect them against the prejudicial beliefs of others at the university (Feltz, Schneider, Hwang, & Skogsberg, 2013). Coaches and others can communicate high expectations that empower athletes to strive for academic greatness or they can hinder their academic development by expecting athletes to be incapable and making all of their decisions.

Professional Sport Expectations

It is very common for young athletes to dream of becoming professional athletes; this seems to be especially true of young, Black athletes (Dawkins, Braddock, & Celaya, 2008; Zeiser, 2011). This dream persists, despite the fact that the odds of going pro are extremely slim. The NCAA (2013) reports that high school athletes have a 3 in 10,000 chance of eventually playing in the NBA and an 8 in 10,000 chance of making it to the NFL one day. Once a high school athlete gets to college, the odds are still so minuscule that in 2013, only around 1.2 percent of college basketball players were drafted into the NBA and 1.6 percent of college football players were drafted into the NFL (NCAA, 2013). These statistics do not even account for the fact that some universities will have multiple draftees in one year and others have never even had one athlete chosen. Nor do they reflect the fact that not everyone who gets drafted will make enough money to consider their professional career a success or have lifelong wealth (NFLPA, 2011). In other words, being the best high school player in your state or even the best player on your college team is not enough to guarantee an athlete a shot at a career in professional sports. Even with such seemingly impossible odds, Black students in particular are being

socialized to think their athlete role and the long shot to fill one of the limited slots in sports is their primary opportunity for success, and that they should ignore any non-athletic distractions (Bimper, L. Harrison, & Clark, 2013). For almost every high school and college athlete, this choice would not be wise.

One reason that these odds are often ignored is that many youth are only familiar with these success stories; they see professional athletes who have beaten the odds (Dawkins, Braddock, & Celaya, 2008). For a poor, inner-city student-athlete, who sees the money and fame of the pros as a way to get their family out of their current situation, aiming for a career in a professional sport might appear to be the only option. Also, many professional athletes look like these student-athletes, and a lot come from similar backgrounds, so the athletes they see on television may become de facto role models.

It can be argued that one reason so many student-athletes are enamored with "going pro" is that they are being socialized to view a career in professional athletics as being more attainable than one that requires getting a college education. There has been an overemphasis on sports for many Blacks and other minorities, and this impacts the social and educational development of student-athletes from these groups (Dawkins, Braddock, & Celaya, 2008). When young athletes see professional basketball and football players in the media every day (Zeiser, 2011), it only makes sense that they would idolize athletes instead of other professionals who have likely moved out of low resource communities once they can afford to live elsewhere (Crane, 1991). This media exposure, as well as contact with adults and peers that also idolize professional athletes, makes it

hard for a talented student-athlete not to wonder whether he or she will be the next big thing.

Of course, the media is not the only influence on young athletes' professional sport career expectations. During early adolescence, parents may impact the careers to which their children aspire (Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001). Since this is such an important period for identity formation, these parents may be assisting their athlete in selecting a role that will inform his or her current and future identity. Choosing to identify as an athlete can then shape the way they behave and view themselves and the way others view/treat them in a school setting. For example, if a student-athlete believes that going pro is inevitable, it seems logical that school would seem less valuable. Thus, knowing the quadratic formula would not appear to be relevant for success to someone who plans to catch touchdown passes for a living. Davis (2013) found that at the high school level, aspiring to play a sport professionally does not yet have an impact on grade point average. However, Beamon and Bell (2002) noticed that as Black college football players' professional sport expectations decreased, their willingness to read for classes increased. This difference between the academic outcomes for the groups in these two studies may indicate that hearing messages about playing professional sports may have a cumulative effect on athletes and that as these expectations become stronger, they may effect the way athletes engage with their academic demands. This dissertation will explore the possible connection between professional sport expectations and academic outcomes.

Professional sport expectations in high school. In high school, professional sport expectations and aspirations may be related to parental influences. Sage (1980) found that parents play an enormously important role in socializing children into sports. At times they instill both participation and performance expectations in their children that can follow them from their early years until they end their participation in organized sports. As children age, they begin to have their occupational aspirations and potential long-term career options more greatly influenced by sources outside of the family, like teachers or coaches (Jodl et al., 2001). Once these other connections are made, children begin to take on their chosen roles, start having their own perceptions of sports, and are able to decide how much value they would like to place on sports. As a result, athletes' choices begin to influence not only their own behavior, but also the behavior of all of the sources in their contextual realm (Jodl et al., 2001). In simpler terms, athletes create their own aspirations and expectations based on the influences of others' socialization, and then athletes are treated differently according to their chosen actions.

Viewing this internalization of professional sport expectations through the PVEST lens (Spencer, 1995), socializers would be seen as contributing to the risk (or protection, for those who will actually play professionally) of young athletes. Socializers' projections of professional sport expectations on young athletes may cause them to react by playing or practicing sports more frequently. Frequent sport participation can improve athletic performance and cause the athlete to internalize the professional sport expectations as his or her own. Being in an environment where others expect a young

athlete to play sports professionally can contribute to the young person's identification with the role of an aspiring professional athlete who expects to play at the next level.

Professional sport expectations in college. Once in college, athletes who have internalized messages about playing professional sports are one step closer to reaching what may seem like a lifelong dream. At this level, the weight of the messages becomes heavier and those pushing professional sport expectations may become more convincing to athletes who are closer to seeing the light at the end of the metaphorical tunnel. At the college level, there is still evidence that Black athletes and those who participate in revenue-producing sports are more motivated and have stronger aspirations of having a career in professional sports (Gaston-Gayles & Schuh, 2005; Beamon & Bell, 2002). This may be the case because they are receiving messages about playing professional sports from people -- like their parents and coaches -- whose encouragement may have a stronger influence on their self-concept and future decisions (Marx et al., 2008; Beamon & Bell, 2002).

Adding to expectations they receive from key influences are those messages from a host of less significant others who convince athletes that they should strive to play at the next level. Even when athletes understand how weak the odds are of them actually making it to the pros, hearing these messages from so many others will begin to make these dreams seem a bit more believable. As aspirations are transformed into expectations, what once seemed like it was simply a dream is now perceived as the only reality. These internalized expectations can lead to a problematic over-identification with

the athlete role (L. Harrison et al., 2011), which can impact athletes' behaviors and how they spend their time.

Increased exposure to professional sport expectations may not directly affect behavioral changes, but spending more years in an environment with toxically high professional sport expectations can certainly reinforce beliefs that do impact behavior. A study on college football players found that higher class standing (e.g., freshman, senior) predicted a greater belief that athletes would play professional sports (Beamon & Bell, 2002). That study's authors believed that this was due to socialization that had taken place prior to college, which was reinforced and accepted amongst the football players in their college environment.

The likelihood that socialization sources reinforce professional sport expectations may be based on a number of factors including race, gender, and sport. Fathers are more likely to express higher sport expectations of their sons than their daughters (Sage, 1980). Additionally, Black male student-athletes are socialized more intensely toward sports than their White counterparts and have stronger sport expectations, as well (Beamon, 2008). Perhaps it is easier for these athletes and their socializers to believe that their success is more dependent on what they can do in a professional sports league and less on what they can do in the classroom. These beliefs may be based on knowledge of longstanding educational inequities or simply perceived individual academic ability. What is interesting is that even when athletes understand that they probably will not play a sport professionally, they still pour their time and effort into competing in athletic competition (Brown, Glastetter-Fender, & Shelton, 2000). This may be evidence of the

powerful system of others' expectations that constantly surrounds many athletes, and especially those in revenue-generating sports.

Revisiting PVEST (Spencer, 1995), the internalization of professional sport expectations for college athletes seems similar to that of the high school athletes, but there are at least a couple of major differences. First, college athletes deal with environmental risks and protective contributors that are different from those of high school athletes. College athletes also have fewer enforced limitations on the amount of time they can spend on sports. This means that they have more time to devote to practicing and strengthening their expectations that they will play professionally. Even with these differences, the internalization follows a similar cycle. College athletes may be surrounded by people who believe they will eventually play their sport professionally. These people communicate their messages of expectation, and some college athlete react by making choices that help them develop athletic skills. Eventually, the athletes begin to identify with the idea that professional sports are a definite next step and act accordingly. Once college athletes are identified as future pro athletes, others begin to view and treat them as such. As a result of these newly strengthened occupational expectations, athletes find themselves surrounded by more socializers with more deep-seated expectations.

Identity Development

Adolescence is an important time for building and exploring personal identity. Erikson (1968) believed that as adolescents begin to recognize their individual abilities and belief systems and realize the expectation of others, they use this information to form their own identity. In the context of school-sponsored sports, athletes are exposed to

messages about how others view their athletic and academic talents. Athletes use this feedback to help them determine whether school will be relevant for the person they imagine they will become in the future. These determinations help athletes shape various aspects of their identities, as they seek their place amongst their peers and with adults in school and the surrounding community.

Playing high school sports can assist school-aged students in their identity development. Fredricks and Eccles (2006) found that playing high school sports contributes to student-athletes' identities as members of a school community. This helps athletes develop a sense of belonging to a larger group. Also, those who play basketball or football at the varsity level may be even more likely to integrate their athlete status into their personal identity (Zeiser, 2011). Some high school athletes use sports as a way to move up their school's social hierarchy or as a source of identity that influences their interactions in many other contexts (e.g., home, community, future career). For those students who excel at sports and reap the many social benefits, others' feedback might help make a difficult identity choice appear rather easy.

Playing a sport at the college level is yet another affirmation of athletic ability and gives student-athletes another opportunity to separate themselves in others' eyes. Rather than being seen as just another student, many student-athletes are seen by others simply as athletes because it distinguishes them from all of the other students. Even though student-athletes actually have many roles, it is difficult to devote feelings about identity into each role equally so at times, some roles become more salient than others (Adler & Adler, 1987). Because it is so challenging to dedicate adequate energy to being a student

and an athlete, in many instances, student-athletes begin to see themselves in the same way that others see them: as athletes first.

According to Bimper, Harrison, and Clark (2013), the time demands and other constraints that are imposed upon athletes make it hard for them to focus on any role other than that of being an athlete. Referring back to PVEST (Spencer, 1995), student-athletes have a number of risks and protective contributors that could allow them to identify either as a student, an athlete, or a combination of the two identities (see *Figure 1*). *Stress engagement* occurs when there is not enough energy for both identities. Student-athletes react to this dilemma by either behaving more like a student or more like an athlete. An unbalanced identity emerges, which favors one role over the other. In the case of the athletes in the study by Bimper et al. (2013), the athletes were forced to do so many athletic activities, that they became extremely identified with their roles as athletes. Thus, if college student-athletes are made to focus on athletic tasks and behave according to societal norms for athletes, they become limited in how others identify them, and eventually, how they identify themselves.

Athletic Identity. Athletic identity is the extent to which a person sees oneself as an athlete, thereby identifying with the athlete role (Brewer, Raalte, & Linder, 1993). A person's identification as an athlete governs their perception of the world, as many situations will be seen through an athlete lens. The strength with which one identifies as an athlete determines the importance of athletic participation and whether that participation is to be used as a way to express and define oneself (Nasco & Webb, 2006). The athlete identity may begin to develop early in life and with time and repeated

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participation in sports, this identity can strengthen (Steinfeldt & Steinfeldt, 2010). As

athletes play at higher levels, they become more committed to playing sports as their

reputation and personal identity become intertwined with who they are as an athlete

(Comeaux, & C. Harrison, 2011). Others begin to see them as athletes and treat athletes

as they think athletes should to be treated. The athletes also see themselves as athletes

and act accordingly. Student-athletes may also be drawn to strengthening their athletic

identity the less those around them see them as anything other than athletes. In a study

with college athletes, researchers found that student-athletes who perceived that their

coach did not believe them to be academically capable, identified more strongly as

athletes (Feltz, Schneider, Hwang, & Skogsberg, 2013). Most college coaches are limited

in their capacity to assess academic ability, as coaches will mostly base their judgments

on grades and standardized test scores rather than observed academic potential. It is

possible that many coaches have a myopic view of capable students who they see simply

as athletes. In this and many other instances, student-athletes followed their coach's lead.

Developing a strong athletic identity has been associated with feelings of

acceptance (Steinfeldt & Steinfeldt, 2010), better athletic performance, and various

psychological advantages, including increased confidence and enhanced body image (L.

Harrison et al., 2011). On the other hand, having a strong athletic identity has also been

linked with reduced academic performance (Brewer, Raalte, & Linder, 1993), greater

social isolation, and decreases in career preparation (L. Harrison et al., 2011). Since those

who have high athletic identities perceive sports as being an extremely important part of

life, they tend to link their performance with their self-esteem (Melendez, 2006). So long

as these athletes do well in sports, they are able to feel a sense of worth. Possessing a high athletic identity is not always a bad thing, but it can create an added risk if it stifles the development of additional aspects of a student-athlete's identity. The ability to develop other areas of one's identity is important since almost all student-athletes must establish themselves in a career outside of sports (NCAA, 2013).

Student-athlete identity. For many athletes, the pressure to maintain the athlete role while also inhabiting the role of the student may become overwhelming and cause role conflict and psychological distress (Figler, 1987; Settles, Sellers, & Damas, 2002). This type of conflict is less likely to happen to student-athletes who see both their role as a student and their role as an athlete as opportunities to be successful, than in cases where the athlete feels as though these roles are competing. In other words, socializing athletes to believe that these identities are in competition or placing student-athletes in situations that put these two parts of their identities at odds can be problematic. Especially since a common resolution to this conflict is to reduce, or in some cases, completely desert the academic role (Adler & Adler, 1987).

The phenomenon of student-athletes choosing athletics over academics is not surprising as, it was found in several previous studies. Marx, Huffmon, and Doyle (2008) suggested that the student-athlete identity is not stable. They posited that dual social identities, like the student-athlete identity, are unstable because it is possible for one of the two roles to be exceedingly boosting or damaging to the student-athlete's self-esteem. Adler and Adler (1987) theorized that as student-athletes evaluated their gifts and limitations, they begin to place greater salience in identities in which they succeed and

less importance in those in which they perform poorly. More specifically, if student-athletes receive positive encouragement for their athletic feats and negative feedback or discrimination in the academic realm, they will be more likely to emphasize the athletic role over that of the student role (Killeya, 2001). If this is true, those who provide college athletes with negative messages about their academic performance may be doing them a major disservice by helping to guide them away from a more balanced identity and toward an identity that over-emphasizes athletics.

Settles and colleagues (2002) found that student-athletes who indicated that it was more important to be seen as an athlete displayed lower psychological well-being than those who viewed the two roles as being separate. The authors proposed that separating the roles allowed student-athletes to focus on each task only in the moments that their attention is necessary (Settles, Sellers, & Damas, 2002). Viewing the student-athlete identity as two separate roles also allowed student-athletes to feel confident from performing well in one role, even if they performed poorly in the other role.

Some researchers discovered that many student-athletes are not given the opportunity to strengthen both roles, but instead are socialized to over-identify with their role as an athlete. In a study by Bimper, L. Harrison, and Clark (2013), college athletes expressed their concern that the sports culture encouraged and socialized them to value their athletic identity above any other of their other roles. Aside from those directly involved in the sports culture, student-athletes may also have to deal with athletic role reinforcement by others like academic advisors and professors (Feltz, Schneider, Hwang, & Skogsberg, 2013). Additionally, if socializing agents are cultivating the athletic role at

the expense of the student role, they are likely perpetuating social inequality, as many student-athletes come from socially and economically marginalized groups (Beamon, 2008).

Group differences in student-athlete identity. Settles and associates (2002) found that student-athletes who received more athletic aid identified with the athlete role more strongly, placed less importance on academics, and reported more depressive symptoms than those who received less athletic aid (Settles et al., 2002). Receiving less aid was linked to student-athletes coming from families with higher incomes. In other words, those who came from lower income backgrounds over-identified with their roles as athletes, but not with their roles as students.

Researchers have also found group differences in the over-identification of the athlete role within the student-athlete population and the reinforcement of this over-identification by those surrounding athletes. Non-White athletes and those who participate in revenue generating sports displayed the most dissonance between academic and athletic motivation (Gaston-Gayles & Schuh, 2005). Melendez (2006) found that men were more likely to have an identity in which they more strongly identify with the athlete role at the detriment of the student role. Even though others encourage female athletes to perform well during athletic competition, people around female athletes typically reinforce both aspects of their student-athlete identities (Marx et al., 2008). Most female athletes come to college expecting to be both a student and an athlete, and it is likely this is reinforced by the lack of professional sport opportunities for women (Feltz et al., 2013; Marx et al., 2008).

Stereotypes and Racial Identity

In a society that has never been afraid to stigmatize members of its subgroups -- based on such characteristics as: mental illness (Rusch, Kanter, Manos, & Weeks, 2008), weight (Hussin, Frazier, & Thompson, 2011), perceived region of origin (Awad, 2010), sexuality (Gowen & Britt, 2006), lack of income (Cleaveland, 2008), and skin tone (M. Harrison & Thomas, 2009) -- there are certainly unsubstantiated negative perceptions of athletes (Sailes, 1993; Hall, 2002; Stone, Perry, & Darley, 1997). While the origins of athlete stereotypes are debatable, it would be naïve to deny their existence. Using a large sample of college students in Indiana, Sailes (1993) found that nearly half of the students surveyed believed that college student-athletes were not as intelligent as those college students who were not athletes. Despite the lack of scientific evidence to substantiate this "strong but not smart" stereotype of student-athletes, the stereotype is still so prevalent, that the NCAA has commissioned an advertising campaign that attempts to dispel this common myth (Stone et al, 2012). It seems, athletes are not only competing against each other on the field, but they are also competing for the respect of classmates who may already see them as intellectually inferior.

For many student-athletes, not only do their peers believe it is impossible to have both brains and brawn (Sailes, 1993), but so do many of their elders (i.e. teachers, school administrators, and parents). At times, these ideas can cause people to treat student-athletes differently than other students. Someone who believes athlete stereotypes to be true will view and treat athletes with certain expectations and as if the stereotypes are their actual attributes (Stone, Perry, & Darley, 1997). As a result of this differential

treatment, stereotypes can have a real impact on all of student-athletes' interactions in which either academics or athlete-status are salient. Interacting with those who stereotype student-athletes can have a direct impact on the identity development of student-athletes (Chang & Demyan, 2007), as they will make judgments about *who they are* based on the views of and treatment by others. In Spencer's (1995) PVEST model, these stereotyped beliefs represent another *risk contributor* that works to change an athlete's *emergent identity* and eventually their academic *outcomes*.

Black student stereotypes. On the field stereotypes appear to be strongly associated with those in the classroom, as Black students -- particularly Black males -- are stereotyped as less intelligent than Whites (Hall, 2001; Hall, 2002). Much of the literature on teachers' academic expectations for Black male and female students indicate that teachers have lower expectations of Blacks' academic ability and performance (Bentley-Edwards & Robbins, 2014; Chang & Demyan, 2007; Tenenbaum & Ruck, 2007; Thomas, Coard, Stevenson, Bentley, & Zamel, 2009). The existence of these negative perceptions of Black students could cause teachers to treat Black students as if these lower expectations were a guaranteed outcome, creating a self-fulfilling prophecy (Chang & Demyan, 2007; Hall, 2002; Madon, Jussim, & Eccles, 1997). Thus, what was once simply a stereotype of Black underachievement has been made into a reality.

Here we find another example of Spencer's PVEST model (1995), as being exposed to unfair treatment by teachers with low expectations can eventually affect the grades (*academic outcomes*) of Black students by changing how the students act (*reactive coping mechanism*) and identify (*emergent identity*) in class as a response to these

expectations (Spencer, 1995; Bentley-Edwards & Adams-Bass, 2013, see *Figure 1*). As a result of their reduced grades, they continue to be placed in classes with lower expectations in the future, continue to believe that they are simply low performing students, and continue to respond with grades that confirm their beliefs.

Black student-athlete stereotypes. The combination of negative perceptions of Black athletes and those of Black students put Black student-athletes at particularly high risk. Neither of these key identities can be easily hidden, leading Black student-athletes to report perceiving that their teachers and peers view them more as "dumb jocks" than they do their White teammates (Stone, C. Harrison, & Mottley, 2012). Engstrom and Sedlack (1991) suggested that Black student-athletes are more often portrayed as "dumb jocks," than their White counterparts. Again, this is likely connected to the fact that there are so many negative academic stereotypes that are connected to minority status (Yopyk & Prentice, 2005).

In the study by Sailes (1993) in which college students believed that college athletes were not as smart as the non-athletes, many Whites also believed that Black athletes were not as smart as White athletes. So White athletes may find that they have an advantage over their Black counterparts, as their Whiteness allows them to maintain some of their in-class status that may be removed due to their athletic participation. Aside from students believing the stereotype that Black athletes are least intelligent, there is also a belief by many stakeholders that Black male athletes are only in college to pursue athletics and do not care about their educations (Bimper, L. Harrison, & Clark, 2013).

The existence of these stereotypes is only part of the issue; the ways in which people treat athletes as a result of these stereotyped beliefs can be very impactful (Cokley, 2002). On the field of play, capable White athletes are steered away from sports and positions that are reserved for the best athletes (Hall, 2002), and Black athletes are steered away from sports and positions that are perceived to involve using high levels of intelligence. We should also consider the impact these stereotypes have on the people that are supposed to be helping athletes plan for their futures (Stone et al., 1997). Off the field, these people may be more likely to emphasize the importance of academic preparation for White athletes and athletic preparation for Blacks. In an example of this, Comeaux and C. Harrison (2007) found that faculty members were less likely to help Black athletes with study skills than White athletes. This may be a sign that either these stakeholders believe or the athletes have internalized the stereotype that Black student-athletes are not in college to learn, but are only there to play sports.

Racial identity. Racial identity is a multidimensional construct for which a group of people is socialized to feel as though they are part of a collective identity that is delimited by race (Cokley, McClain, Jones, & Johnson, 2011). Internalization of a racial identity can lead to a strong identification with many of the characteristics that are ascribed to certain racial groups; this internalization can include identification with racial stereotypes (Bentley-Edwards & Stevenson, 2014; Cokley et al, 2011). For student-athletes, and particularly Black males, this could lead to an internalization of the stereotypes of Black students and those of Black athletes. Many of these student-athletes will develop their racial identities parallel to their athletic identity (L. Harrison, Sailes,

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Rotich, & Bimper, 2011). As this happens, Black males may feel that in order to strengthen their Blackness, they are required to fit the superior athlete stereotype that has arisen from societal beliefs on Black dominance in sports. Because of this, many Black adolescent males will use sports participation to help develop their racial identity (Zeiser, 2011). These student-athletes look to their athletic participation as a way to define themselves as a Black person (Cokley, 2002; L. Harrison et al., 2011). When these stereotyping beliefs begin to permeate the thoughts of student-athletes so much so that they begin to fully identify with the stereotypes that have been placed on them, this process is what Cokley (2002) refers to as internalized racialism. These student-athletes hear stereotyping messages so frequently that they uncritically begin to believe them to be true about members of their own racial group, but they start to believe these messages are true for them and become a part of their own identity.

Student-athletes also receive racial identification messages from other parts of their environment, including those messages that they receive while watching television. Billings (2004) published a study that looked at the differences between commentators' depictions of Black and White quarterbacks. He found that there are differences in the descriptions of the two types of quarterbacks. If young, Black viewers watched these telecasts, they were able to hear commentary on what they are expected to be (i.e. naturally, athletically superior), in contrast to what they are not (i.e. hardworking and cerebral) (Billings, 2004). This type of commentary passes along common societal views about what it means to be Black, and what it means to be a Black quarterback. Receiving these messages from the media can impact the way student-athletes view themselves, and

the way they want others to view them. Revisiting the PVEST model (Spencer, 1995), these messages will affect how they choose to train/play on the field (*reactive coping strategy*), which will impact how they see themselves and are seen by others (*emergent identity*), and this will determine the course of their athletic career (*life-stage outcomes*) (Bentley-Edwards & Adams-Bass, 2013). The cycle restarts when they are exposed to new risks and protective factors as a result of their chosen style of play.

Academic Socialization

Academic socialization is a cultural mechanism by which academic norms and expectations are transferred to adolescents. This type of socialization incorporates such activities as communication of academic achievement expectations, promotion of occupational and educational aspirations, academic assistance and planning, and student encouragement (Hill & Tyson, 2009). Academic socialization by parents includes transferring beliefs and achievement expectations, which may be hard to measure directly (Suizzo, Jackson, Pahlke, Marroquin, Blondeau, & Martinez, 2012). For this dissertation, academic socialization can be conceptualized as the reception of academic involvement (Suizzo & Soon, 2006; Régner, Loose, & Dumas, 2009) and educational encouragement (Hoover-Dempsey & Sandler, 2005), as well as the reflection of aspirations and expectations of academic achievement, the expression of occupational aspirations, and the internalization of messages about the value of obtaining an education (Hill & Tyson, 2009).

Various forms of academic socialization have been associated with positive academic outcomes at various school levels (Suizzo et al., 2012; Charles, Roscigno, &

Torres, 2007; Gibson & Jefferson, 2006; Hill & Tyson, 2009; Miller, Melnick, Barnes, Farrell, & Sabo, 2005). Communication of expectations as well as being involved in students' academic engagement matters from the time students enter elementary school until they graduate from college, and can have an impact on whether they go to college (Charles et al., 2007). Speaking with students about how to plan and prepare for school can make it easier for them to negotiate confusing aspects of school, while not speaking to them about school can give a student the impression that school is not important, making it harder for the student to disengage from their education (Charles et al., 2007). Suizzo and colleagues (2012) found that even when parents did not help their adolescents with homework, students' academic behaviors were directly impacted by what they perceived to be their parents' desires. From simply speaking with their children, parents can communicate and transfer their own educational aspirations by helping their students plan course schedules, prepare for college, and decide the activities in which they will participate. However, it is important to remember that parents are not the only socializing agents for students; others, personal attributes, and social contexts can also play a role in shaping their academic and athletic identities (Sage, 1980). This dissertation addresses the gap in the literature on the effects of multiple informants who provide academic socialization to athletes, in particular.

    Academic involvement. Academic involvement consists mostly of behaviors that monitor and assist students as they complete specific academic tasks. Studies have shown that this type of involvement can come from anywhere, but those who are invested in a student's academic success typically take on the responsibility of providing this kind of

direction (Hill et al., 2004; Hill & Tyson, 2009). One study found that parental involvement is an important source of academic socialization for students in middle and high school (Hill et al., 2004). Hill and Tyson (2009) found that parental involvement had a positive impact on academic achievement. In another study, Hill and associates (2004) suggested that academic involvement communicates future success and upward mobility expectations to adolescents, while also indirectly increasing their educational and occupational aspirations, especially in those whose parents have less education.

Academic involvement has been shown to be less helpful to its recipients at times; it has been shown that providing homework assistance does not always predict academic achievement (Hill & Tyson, 2009). Also, if the person involved (e.g., parents) has negative beliefs about the student's ability, those beliefs may be reflected through the types of involvement in which they are willing to participate, which may actually stifle the student's motivational development (Pomerantz et al., 2007). If involvement becomes too intrusive or controlling, it limits the student's ability to solve their own problems and forces them to feel less efficacious, especially if they did not need the extra assistance (Tan & Goldberg, 2009). This kind of intrusive involvement has a short-term benefit, but in the long run achievement and autonomy suffer (Suizzo & Soon, 2006; Pomerantz et al., 2007). In other words, there may be such a thing as too much involvement, and especially if this involvement is preventing a student from doing things that are developmentally appropriate. Research has not sufficiently examined the role of academic involvement, intrusive or otherwise, on the academic performance of college

student athletes. This dissertation will address the role of academic involvement in improving athletes' academic outcomes.

Educational encouragement. Educational encouragement can take place whether or not a student is struggling in school. For students who are enjoying educational success, encouragement can challenge them to improve their skills by seeking more enrichment and knowledge. Students who are struggling can benefit from having someone who can model persistence, while providing emotional support verbally and with encouraging behaviors. One study found that parents from many diverse backgrounds encourage their students in educational endeavors by using emotional support as a means of academic socialization (Suizzo & Soon, 2006). Of course, this type of support can come from others outside of the family. Especially in the case that those providing the encouragement have a vested interest in a students' ability to perform in an academic setting. Having access to this support can inspire a student to keep trying even when it appears that success might be quite a challenge.

The value of an education. Parents and others model their perceptions the importance of receiving an education (Boxer, Goldstein, DeLorenzo, Savoy, & Mercado, 2011) and over time, students internalize these messages and can become intrinsically motivated to learn (Pomerantz, Moorman, & Litwack, 2007). Also, messages that convey the importance of doing well in school can improve determination, which can lead to an increase in overall grade point average (Suizzo et al., 2012). Receiving messages from socializing sources about the importance of doing well in school and graduating can impact how hard a student is willing to work when encountering an academic challenge.

Those students who are not given messages about the value of education may have a harder time connecting what they are doing in class with what they plan to do in the future.

Academic Socialization of Student-athletes

Participation in athletics has been linked to more academic socialization and some of the benefits associated with academic socialization (e.g. higher educational aspirations and academic achievement), with White males appearing to be the group who most strongly benefit (Miller, Melnick, Barnes, Farrell, & Sabo, 2005). For student-athletes, these socializing messages may come from a number of external sources with which the typical student may not come in contact. It is likely that before many of these athletes enroll in college, they are already surrounded by a number of people who have aspirations for them (Beamon & Bell, 2002; Marx et al., 2008; Sage, 1980) -- particularly in the case of Black athletes and those in revenue-generating sports -- and their desires are not always focused on athletes' academic future. At times, these sources send messages that communicate what can be gained by becoming a well-known athlete, rather than teaching athletes to develop a solid academic foundation. Even though academic socialization does not have the same effect on all student-athletes, it is an important mechanism for teaching them how to feel about their own education.

Many socializers explicitly communicate their expectation for their student-athlete to attend the college with the finest academic program. And, of course, there are also those who tell student-athlete that they only need to pass enough classes to be eligible to play sports and graduate from high school. These are both clear examples of

academic socialization, as they communicate academic expectations and leave little doubt about socializers' feelings with regards to the value of attending school. For a student-athlete, socializing messages can come from a number of socializing agents including parents (Fredricks & Eccles, 2005), teachers (Jordan, 1999), coaches (Zeiser, 2011), peers (Patrick, Ryan, Alfeld-Liro, Fredricks, Hruda, & Eccles, 1999), the media (Lee et al., 2011), and their school. Whether these messages are subtle or blatant, they give athletes insight into what is expected of them in the classroom, and can impact their current and future academic plans.

Parents and family. Previous research has spoken to the importance of parents and other family members in the socialization of children (Suizzo & Soon, 2006). According to Fredricks and Eccles (2005), parents influence both participation in sports and athletes' beliefs by role modeling, giving messages about the value of sports and their athlete's ability, and providing positive experiences and emotional support to their young athletes. They also found that parents reinforce desired patterns and linked continued participation in sports to parental encouragement. Parents and other members of the family transmit their own beliefs about ability and value to children by sending them overt and covert messages (Fredricks & Eccles, 2005). Parents and other family members are likely to be an important socializer for athletic participants at every level of participation, because their messages are present and can be internalized from an early age.

To a family, attending games, giving rides, buying equipment, and helping to coach the team seems like they are simply being supportive to their child. But to an

athlete, these actions say, "I support your participation in athletics." Children tend to repeat behaviors for which they receive positive feedback; it comes down to whether or not parents are willing to devote this same type of attention and money to academic endeavors (Bentley-Edwards & Robbins, 2014). If not, parents are either purposely or inadvertently showing their preference for sports, and helping young student-athletes decide where their own value should be placed. This is not to say that parents are totally at fault if their student-athletes gravitate more toward exceling at sports than they do at academics; most parents are willing to nurture whichever talents they see in their children (Dawkins, Braddock, & Celaya, 2008). It does, however, make one wonder how things might be different if parents invested more time and resources in academics or academic extracurricular activities. How might things be different if instead of providing orange slices at the football game, a parent brings snacks for an academic team competition? What if instead of providing extra lessons with a quarterback coach, parents were to pay for extra tutoring services at the local learning center? It is possible that value judgments would shift, as would academic outcomes (Bentley-Edwards & Robbins, 2014).

Even though parents and families transmit many academic messages before the athletes get to college, their influence is still important for the academic outcomes of college student-athletes. A study by Beamon and Bell (2006) yielded several interesting findings about the role of parents in the academic socialization of NCAA football players. First, they found that Black football players' academic performance was positively impacted by parental support for academic achievement. Additionally, parental emphasis of academic over athletic achievements was associated with better classroom

performance for Black athletes. These authors also found that there was a positive relationship between support for academics and support for athletics (Beamon & Bell, 2006), which provides additional evidence that many parents simply hope to push their children to improve their talents.

Peers. There is a dearth of research on the role of peers in the academic socialization of student-athletes. There is, however, some evidence that peers impact identity, decision-making, and outcomes of athletes, especially within the school context (Crosnoe, 2002). At the high school level, participation in sports has a direct impact on adolescents' friend choices, and therefore affects their exposure to various norms and values (Fredricks & Eccles, 2006). Peers convey implicit and explicit messages that affect adolescents' identity perceptions (Patrick et al., 1999), and help reinforce societal expectations for appropriate athlete behavior. Peers may also contribute to the academic success of athletes. Comeaux and C. Harrison (2011) found that establishing relationships with non-teammate peers was associated with greater academic success for college athletes.

Peers can also help developing student-athletes define the connection between athletics and academics. Sports participation research has shown that peers influence whether or not adolescents choose to play sports and their motivation for academics (Patrick et al., 1999). This means that peers likely play an important part in helping student-athletes at all levels determine the socially appropriate balance between school and sports. So if their peers show them that athletics is more important than academics, then athletes are more likely to internalize that belief. This could affect how student-

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athletes identify with their student and athlete roles, which might have academic consequences.

Other ways in which peers influence student-athletes is by granting them higher social status and helping athletes build their identities. Many of their peers attend games and cheer for their athletic classmates from the stands. This fandom may continue outside of the stadium and into other areas of athletes' lives. Adoration by peers can give athletes the impression that they do not have to behave according to the normal set of rules (Miller, Melnick, Barnes, Sabo, & Farrell, 2007). This makes it more likely that athletes will engage in unacceptable behavior, academic or otherwise, without fear of consequences. Without peers who reinforce positive expectations in both domains, athletes may begin to perceive that as long as they are doing well on the field, their peers do not care about their classroom performance.

Other sources of academic socialization prior to college

Beginning in early childhood, various socializing agents (e.g. parents, teachers, coaches, and others) help student-athletes connect sports to academics (Dawkins, Braddock, & Celaya, 2008). They decide when and how to reward both academic and athletic success, and help students determine the value of sports. Many times, adults who are involved with the athletics programs at schools encourage student-athletes to do well athletically, while also pushing them to do well in the classroom (Jordan, 1999). However, as the athletic and financial stakes get higher, some of these adults and athletes' peers may lose their focus on the education that will be more likely to lead to the athletes' long-term financial security. It takes a conscious commitment from all parties

involved to ensure that athletes grow up learning to value educational attainment. Especially since, in many cases, these socializers are setting the stage for how athletes will eventually view their classroom roles once they get to college.

Teachers. Teachers tend to be the most visible adults in schools, which gives them the very important role in communicating the beliefs and ideas of the school to students. Athletic participation can increase a student's visibility to teachers and may also help these student-athletes gain status with teachers and their classmates (Pearson, Crissey, & Riegle-Crumb, 2009). Studies have found that some teachers give student-athletes special treatment, which leads to their judgment that the rules and consequences are different for athletes (Wetherill, & Fromme, 2007). Some high school teachers do not hold student-athletes accountable for their grades in the same way they would for non-athletes, which leads to student-athletes who are less inclined to embrace their own academic accountability. It is important to note that teachers' expectations of athletes have a strong influence on students' academic performance (Lee et al., 2011). According to Lee et al. (2011) teachers' negative expectations of young Black males have a detrimental impact on their academic performance; the same can be said for student-athletes. If these same teachers were to maintain high expectations for all of their students, athletes' would likely live up to these expectations.

Coaches. The same can be said for the influence of coaches, especially since many high school coaches are also teachers. Coaches are a crucial socializing agent, as many players look to them for guidance both during and outside of competition. They provide players with a link to other adults, while also modeling how one involved in

athletics should look (Snyder, 1975). Many coaches also play an integral part in helping student-athletes make decisions about their futures and whether they are good enough to play at the next level (Zeiser, 2011). Coaches are able to teach their athletes to put little or great emphasis on the value of academics, especially since they tend to help student-athletes choose their classes and are usually some of the first people to review players' academic eligibility. If a coach tells his student-athletes that they must earn their grades, and then holds them accountable, they will earn them. If, on the other hand, a coach contacts classroom teachers to lobby for inflated grades so that his athletes are eligible, students see that, and perceive that their coach does not value education, and therefore, they should not value it either. This is why both coaches and teachers are such an important sources of academic socialization for high school student-athletes.

School. A set of socializing agents that seems relatively underexplored, especially in regards to their effect on high school students, is the institution (e.g. the NCAA, high schools, and colleges and universities). Despite nationwide budget cuts and the fact that many athletics programs are losing money, there is still plenty of money invested in school-sponsored sports. At the high school level, some schools use their football or basketball programs to generate extra revenue and replace some of their lost funding. Since many school districts are willing to cut academic programs, arts programs, and teachers before they terminate their football programs, it should not be surprising if athletes learn that what they do on the field is more important than what occurs in the classroom. Even if deciding to leave athletics programs intact is simply a sound business

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decision, it still communicates to young athletes that extracurricular athletics must be more valuable than academic programming.

Beyond the economic side of sports, high schools provide other messages that can influence the way a student-athlete perceives their education. At some high schools, athletics programs are given special privileges when creating class schedules. These privileges may include creating special sport-specific classes, giving priority registration to athletes, and having the ability to create class schedules that are tailored around practice or game times. *Giving coaches the ability to manipulate high school athletes' schedules may remove the responsibility from the athletes, but it also detaches them from the educational process, and shows them that eligibility is a top priority*. Another side effect of giving coaches this kind of power is that they are able to steer athletes away from challenging courses and toward courses that will boost their GPAs (Jordan, 1999). Even if an athlete knows that their school is allowing this to happen, they cannot be expected to undermine their coaches and opt to take harder classes, as they are on the wrong end of an imbalanced power dynamic. Since many athletes do not have the authority to stand up to their coaches without intervention from another adult, they are forced to simply trust that the higher powers have their best interest in mind. This is not always the case.

Other sources of academic socialization in college

For those high school athletes who are academically resilient and athletically gifted enough to make it to the next level, threats to their ability to balance the student and athlete role increase. At many universities, student-athletes' lives become more

externally structured, as they are often times in the presence of teammates or a coach. College athletes are expected to eat, study, and live with teammates and regularly find themselves academically and socially isolated from students who are not athletes (Comeaux & C. Harrison, 2011). This limited contact with those who are not involved in sports greatly influences the academic messages that athletes receive and envelops them in an environment where their athletic identity is perpetually salient. This can deny athletes the opportunity to investigate their place among and collaborate with non-athlete peers, as well as explore identity options for whomever he or she will become once they have finished playing sports (Killeya, 2001).

At the collegiate level, NCAA requirements and academic support staffs are added to the socializing equation, increasing college athletes' opportunities to receive messages of academic socialization by adding new socializers. Academic socialization messages likely increase since an athlete's ability to participate in sports and help win games for their university may be contingent on their ability to adequately perform in the classroom. With the higher stakes that come along with winning at the NCAA level (e.g., millions of dollars for coaches and universities, community and national recognition, attention from professional scouts, etc.), there are a lot more people invested in, and in line to benefit from, athletes' sufficient academic performance and its connection with eligibility.

At times, the pressure to maintain eligibility can lead people to participate in practices that compromise universities' academic integrity (Southall, Southall, & Dwyer, 2008). A recent example of this can be found at The University of North Carolina at

Chapel Hill. In this particular instance, various stakeholders allegedly participated in a plot to ensure that student-athletes received GPA-boosting grades in classes for which they only had to submit one paper, which many of them did not even have to write (Wolverton, 2014). This act of academic socialization communicated a clear message to these NCAA athletes about which aspect of their student-athlete identity was most important to those socializers who created and perpetuated this fraudulent system.

Professors. Professors are a key academic socializer in lives of college athletes, as they are able to create an intellectually stimulating environment in which athletes are appropriately challenged or one in which athletes are either stigmatized or given a free pass. C. Harrison, Comeaux, and Plecha (2006) found that when athletes perceived that faculty provided challenging and intellectually stimulating classes, college athletes tended to have higher GPAs. Professors' willingness to see athletes as being academically capable can impact how athletes see themselves and how they approach the class. Additionally, professors who encourage academically high-performing athletes to attend graduate school contribute to their academic success (Comeaux & C. Harrison, 2007). Presenting athletes with similar academic challenges and expectations as those of their peers sends a clear message that the academic success of all students matters, regardless of athlete status.

On the other side of that coin are those professors who treat student-athletes differently than their peers. These professors may attempt to "help" athletes by either giving them a free pass on assignments or by being harder on athletes than they are other students. Those who take it easy on athletes are communicating that athletic talents are

valued most and so long as athletes are excelling on the field, they do not need to focus so much on what happens in the classroom. This type of "assistance" should not be confused with situations in which the professor understands the plight of student-athletes and makes reasonable accommodations (e.g., testing early or late to accommodate travel or adjusting deadlines, while requiring the same quality of work as peers) for athletes who may be limited by their restrictive schedules.

Receiving these messages about comparable and reasonable expectations can be helpful for athletes' academic success; receiving negative messages from professors who treat athletes differently by targeting them with disparaging remarks and stigmatization can be extremely hurtful (Simons et al., 2007). Instead of athletes perceiving these negative messages as motivation to work harder for classroom success, they might see these actions as additional confirmation that they do not belong in the classroom with their peers. Both types of negative interactions with faculty may cause student-athletes to avoid their responsibilities as students, as they are being told that either they do not have to or that they cannot compete with their classmates.

Coaches. As was the case in high school, coaches are a major contributor to the academic socialization of college student-athletes. Coaches are able to control the amount of time that athletes spend doing athletic activities, but they can also control the amount of time athletes are able to devote to academic endeavors (Adler & Adler, 1987). They expect a lot from their athletes and have the power to adjust playing time based on any number of subjective factors. If an athlete is preoccupied with getting an education, it will

likely make it harder to live up to all of the coaches' practice, meeting, and travel requirements (Comeaux & C. Harrison, 2011).

Some coaches view dedication to something other than sports as an athlete choosing to be a student instead of an athlete. For the most vital athletes, coaches may result to various tactics to maintain control over athletes like removing them from the starting line-up (Beamon, 2008) or attempting to coerce them in other ways, such as questioning their dedication in front of teammates or threatening to give their scholarship to a compliant athlete. Coaches who act in this manner are telling their players what should be the top priority. Being bombarded with these messages from such a powerful authority would make it hard for anyone to insubordinately divert attention from improving athletically. Coaches, who see winning games as their primary job responsibility, have the power to influence the hours their players devote to athletic and academic endeavors by communicating their expectations. It is plausible that this can present an unacknowledged conflict of interest in which some coaches are able to promote athletics over academics in order to attain more wins, even if it is at the detriment of academic attainment. Since winning coaches rarely get fired for not graduating their players, the message of athletics over academics appears to be reinforced.

Academic support staff. Athletic departments enlist the help of academic support staffs to ensure that college athletes have assistance as they balance their academic and athletic workload. These staff members serve as academic counselors, advisors, tutors, and mentors who provide numerous services that are designed to help

athletes perform in a classroom setting. The academic support staff is important to the academic socialization of student-athletes, as they are able to communicate the academic vision and expectations of the athletic program with which they are affiliated. At many schools this staff is entrusted to make the academic decisions that will determine whether or not an athlete will be eligible to participate in their sport. As one might imagine, there is enormous pressure on the staff because their livelihoods depend on the academic availability of the best players. Some staff members have chosen to handle this pressure by taking steps that create a culture of low academic expectations, which hinder the achievement of athletes at all levels of intellectual ability (Comeaux & C. Harrison, 2011).

Many researchers believe that the primary goal for many of these staffers is eligibility maintenance (Comeaux & C. Harrison, 2011), so some staffers are willing to do whatever it takes to ensure that student-athletes meet the NCAA's definition of academic success. For some, that means enrolling athletes in less rigorous courses that are guaranteed to maintain their GPA (Figler, 1987). In other instances, instead of enrolling each athlete into classes based on their specific needs and interests, some staff members put large clusters of student-athletes in the same classes (Fountain & Finley, 2011). Presumably, this is an attempt to create a sense of belonging to an academic community, to help athletes have classes with those who understand them the most (i.e., other athletes), or to make it easier for groups of athletes to study together. This attempt to support athletes incidentally prevents them from exploring non-athlete identities, while also making their athletic identities more salient (Killeya, 2001) and leaving them

susceptible to classmate and professor stereotyping. Additionally, college athletes are pressured into majors that will allow them to participate in every aspect of their busy athletic schedule, regardless of their actual interest or the major's marketability upon graduation (Beamon, 2008).

Each of the above practices communicates the belief that it is most important to focus on what happens semester-to-semester -- which is how academic eligibility is determined -- instead of thinking about how courses should move from being more general in the first year to being more specialized, as athletes seek to earn their specific degrees. If athletes do not view each semester's course load as scaffolding for higher levels of knowledge, they may simply realize that chasing eligibility and earning a degree is not always the same thing.

Institutions (NCAA and Universities). At the collegiate level, the NCAA and conferences sign massive television contracts that bring in billions of dollars to member institutions[4] and their executives and make student-athletes more visible on a national stage. Displaying athletes on such a large and unforgiving stage reinforces the belief that on-the-field outcomes matter more than what occurs when the cameras are off, namely classes. With all of the money that is exchanging hands on account of the entertainment provided by student-athletes, it makes sense that many athletes in revenue-generating sports believe that their future career will be in entertainment and not in a profession outside of the public gaze. This belief can contribute to a lack of motivation in the

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[4] In 2010, the NCAA signed a 14-year television deal with CBS and Turner Sports worth close to 11 billion dollars. They now have the right to broadcast a tournament that lasts for around 3 weeks (Whiteside, Hardin, & Ash, 2011).

classroom, as athletes are taught that the real money comes from playing their sport on television. Thus, some athletes may find it difficult to imagine doing anything outside of the sports world.

The commercialization of college sports leaves the NCAA and its member institutions attempting to balance the conflict of successfully marketing their athletic product, while making sure that their amateur athletes are still seen as students. This can lead to lapses in educational responsibilities (Beamon, 2008). As mentioned above, there are academic eligibility restrictions that set the academic bar for athletes. The NCAA has also set a limit of 20 hours per week that athletes can spend engaged in mandatory, supervised athletic activity during the season and 8 hours per week in the offseason. While these limits are supposed to benefit the athletes, they simply absolve the NCAA and schools of any wrongdoing because if a program is in violation of the rules, the culpability can be shifted to a rogue coach. In reality, most coaches have found loopholes that allow them to pressure athletes to "voluntarily" surpass those limits. Failure to intervene on behalf of athletes may inadvertently convey the message that the institutions' primary concern is athletic and not academic performance. If an athlete were to have a grievance about being made to regularly participate in more than 20 hours in a week, he or she might question who can be trusted to take the claim seriously. Rather than fight against this system, an athlete might see compliance as the only tool to maintain their starting positions or even membership on the team – placing their academic status in jeopardy.

There are other ways in which the NCAA and its member institutions communicate their valuing of sports and money over education. One such example can be found in the conference realignment that took place between 2010 and 2014. Allowing schools to move from one conference to another can be helpful for expanding recruiting territory and the size of a school's fan base, but the benefit to the athletes is not so apparent. The fans get to see their athletes compete against more diverse competition and the conference powers get to see more money, while the players get to see more travel time. Thus, a football player from West Virginia University who may have traveled to play against schools along the East Coast during the 2011 season may find his road trips extending out to Iowa, Texas, and Oklahoma by the 2014 season[5]. To this football player, it becomes evident that those who sanction and organize his games are less concerned about his time attending classes and studying on campus, as they have given top priority to profits.

Another way that these organizations are transmitting the message that sports and profits are more important than academics is the expansion of the postseason in the top revenue generating sports of basketball and football. In basketball, the number of teams competing in the championship tournament has increased to 68, which means more athletes will spend time off campus and in the athletic limelight. Those in power have also decided that the BCS system is no longer the best way to determine the national

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[5] During the 2011 regular season, West Virginia played football at Maryland, Syracuse, Rutgers, Cincinnati, and South Florida. Using Google Maps, I mapped each trip from WVU campus to each respective stadium for a total of 4,498 miles (round-trip). I did the same for their trips to Maryland, Alabama (at a neutral site in Atlanta), Texas Tech, Oklahoma State, Texas, and Iowa State in 2014. The total miles were 11,268 (round-trip). These estimates are conservative, as they assume flights take off on campus and land at each stadium.

champion in college football. This means that the top two teams may now to have win from August to November, win their conference championship game in December, and win a bowl game in January, just to play in the national championship game around mid-January. Since these teams practice along the way, it can be a challenge to balance academic and athletic priorities. What athletes from revenue-generating sports may also find challenging is overlooking the obvious message that others are less concerned with their need to prepare for scholastic endeavors and more concerned with watching more teams battle to see whom will be the ultimate conqueror, while networks, advertisers, and wealthy fans throw money at the athletes' handlers along the way. Again, the NCAA and its member institutions are teaching their athletes the importance of giving sports fans what they want, without giving the same significance to ending the season so student-athletes can focus solely on being students.

Summary of Literature Review

Before I move into a discussion of my methods, I will revisit some key points from the literature review. The literature on high school and college athletes' educational aspirations and attainment was inconclusive. It is not clear whether being involved in school-sponsored athletics is a good thing for the academic success of all students or only beneficial to certain students. Part of what makes this issue so complex is that there are many factors in place that help athletes be academically successful, as well as other factors that make playing sports and being a student extremely challenging for some college athletes. An example of conflicting factors would be that while NCAA athletes have academic support programs, they also must contend with busy, athletic-centered

schedules that consume time that may be necessary for academic enrichment. For many of these student-athletes, it becomes a balancing act that involves managing their academic and athletic expectations, as well as those of others in their lives.

As student-athletes attempt to contend with their dual responsibilities, they begin to make decisions about how they will spend their time (Adler & Adler, 1987). At the time, many of these decisions seem minor, but they may eventually impact how others view and treat athletes, as well as how student-athletes self-identify. Athletes' and others' stereotyped beliefs about athlete characteristics may improperly define what it means to be a student-athlete, which may impede athletes' opportunities to perform up to their academic potential (Cokley, 2002; L. Harrison et al., 2011; Stone et al., 1999). This may be especially true in the case of Black NCAA athletes, as they may be forced to overcome their own and others' misconceptions about them being out of place. For those who propagate this society's racialized stereotypes, being Black means being a superior athlete but a poor student (Sailes, 1993; Stone et al., 2012). Along these same lines, to be Black and an athlete means to be a doubly disengaged student. Again, a combination of the factors discussed above may impact the academic performance of college athletes, which may either limit or increase their options outside of athletic competition.

Academic socialization may be another contributing factor to academic success or failure. This type of socialization can be used to reassure athletes that what they do in the classroom is more relevant to their future than what they do during athletic competition. It can also be used to convince athletes that they have little hope of reaching success via academics and that investing time in developing athletic talents is the most lucrative path.

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For almost all college athletes, playing a sport is, at most, a viable option for access to higher education via scholarships and not a golden ticket to professional sport riches. For this reason, it matters who is surrounding young athletes, as their academic socialization messages can help determine which option athletes believe will be more likely to lead to success. This dissertation examines the people surrounding student-athletes and the impact that their messages can have on the athletes' identity development, expectations, and aspirations for themselves (see *Figure 1* for theoretical framework and *Figure 2* for conceptual model).
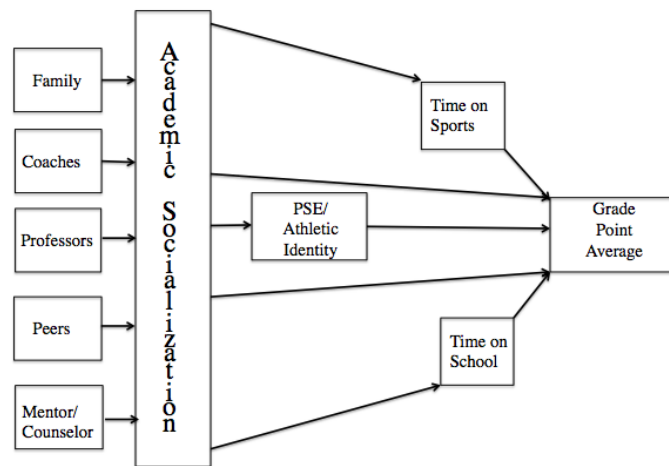
Figure 2: Conceptual Model of the Influence of Socialization on Outcomes

Current Study: Research Questions and Hypotheses

In order to examine the socializing forces of student athletes, this study will be guided by seven research questions. The first three questions apply to all groups of participants, while the fourth question only applies to those groups who endorsed sports participation (i.e., NCAA, Club Sport, Intramural groups), and the fifth, sixth, and seventh questions only apply to NCAA athletes. My reason for approaching the data in

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this manner is that the first three questions will be used to establish whether there are differences between students who participate in sports and those who do not participate, as it is anticipated that those who participate in sports will have different experiences than their non-participating peers. The fourth question will be used to investigate differences between groups participating at different levels of sport, as NCAA athletes are expected to have experiences that are very different from those of club and intramural athletes. Finally, the fifth through seventh questions will be used to examine potential differences that exist within the group of NCAA athletes. The fifth question, in particular, will be used to examine the potential for academic resilience in those athletes who are willing to devote more time to school despite facing the pressures of competing in sports at an elite level. The overall intention of the study is to explore whether NCAA athletes are truly a unique subset of college students and to investigate which factors may contribute to the academic success of student-athletes. The research questions for this study are as follows:

Research Question 1. a) Based on athletic participation (NCAA athletes, club athletes, intramural athletes, and non-athletes), are there group differences in the types of academic socialization reported? b) Does each group rely on the same primary socializer for educational encouragement, academic involvement, and beliefs about the value of education?

Hypotheses for Question 1. a) It is anticipated that there will be athletic participation group differences in the types of messages reported, with NCAA athletes receiving more messages of academic involvement and educational encouragement than any of the other groups. b) It is anticipated that not all groups will rely on the same

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primary socializers, as NCAA athletes will report academic mentors/counselors as a primary socializer.

Rationale for Question 1. a) Previous research has shown that various socializing sources have different academic expectations for those who participate in sports compared to their non-athlete peers (Stone, Perry, & Darley, 1997; Sailes, 1993; Simons et al., 2007). As a result of these differing expectations, socializing sources will socialize NCAA athletes differently than they do students from each of the other groups (club athletes, intramural athletes, and non-athletes). More specifically, NCAA athletes will receive more messages of academic involvement and educational encouragement than any of the other groups. What sets NCAA athletes apart from all other groups, is the presence of academic support staff members who may be actively involved in encouraging athletes to maintain their eligibility, regardless of academic motivation. Since this staff's primary job is to assist NCAA athletes in their academic endeavors, it is likely that they will do so by making sure that athletes are completing such tasks as turning in their homework and continuing to work even when classes seem challenging.

b) Due to the existence of academic support staff at the NCAA level, I am anticipating that this group's primary source of socialization will be academic mentors/counselors and that this will be different from all of the other groups. Since no other group has access to this staff, I anticipate that their primary socialization sources will be similar, but due to the exploratory nature of this study, I am not sure which source will be primary for the others. It is also possible that college has made many of these non-NCAA students handle more of their academic affairs independently, so perhaps they

have internalized messages that were previously received, and now perceive them as an intrinsic drive toward academics.

Research Question 2. a) Does each type of academic socialization predict grade point average in each participation-level group? b) Does each type of academic socialization predict professional sport expectations in each participation-level group?

Hypotheses for Question 2. a) It is hypothesized that all types of academic socialization will positively predict GPA, with the exception of academic involvement, which is hypothesized to have an inverse relationship with GPA in all groups, except for the NCAA group. b) It is anticipated that all forms of academic socialization will have an inverse relationship with professional sport expectations, except for academic involvement, which is hypothesized to have a positive relationship with professional sport expectations, but only in the NCAA athlete group.

Rationale for Question 2. a) Even though various forms of academic socialization have been shown to positively impact academic outcomes (Hill & Tyson, 2009; Suizzo & Soon, 2006; Suizzo et al., 2012), several studies have found that at times academic involvement can border on intrusive (Pomerantz et al., 2007; Tan & Goldberg, 2009). I am anticipating that the non-NCAA groups will find involving behaviors to be intrusive, especially given the fact that college is a time for independence. While other groups might view academic involvement as intrusive, NCAA athletes may see it as a normal part of an already controlled life (Cox et al., 2009), so it might affect them differently than other participants.

b) Feeling academically encouraged and internalizing positive messages about academic expectations are likely signs that students feel self-efficacious and may indicate that students know that sports are not their primary option for success. For this reason, it is anticipated that those who indicate higher levels of each type of socialization will have lower expectations to play a sport professionally. This hypothesis excludes NCAA athletes who report higher academic involvement because for them, higher involvement may indicate that others are providing extra assistance because the athlete is finding it tough to stay motivated to excel in school (Gaston-Gayles & Schuh, 2005) and/or needs additional academic support.

Research Question 3. a) Does the frequency of messages received from each socializing source predict grade point average? b) Does the frequency of messages received from each socializing source predict professional sport expectations?

Hypotheses for Question 3. a) It is expected that regardless of the source, the frequency of academic socialization messages received from others will predict higher GPAs for each participation-level group. b) It is hypothesized that receiving more messages from socializers who may be affiliated with athletic participation (i.e., coaches and academic counselors/mentors) will predict higher professional sport expectations in each participation-level group.

Rationale for Question 3. a) I expect that receiving more messages about academics will be beneficial to students' GPAs no matter the socializing source or the level at which they participate in sports. Studies have shown that academic outcomes can be positively impacted by various socialization sources (Suizzo et al., 2012; Hill &

Tyson, 2009; Miller et al., 2005; Charles et al., 2007; Gibson & Jefferson, 2006). Unlike the second part of this question, it is anticipated that socializers affiliated with athletics will not negatively impact GPAs of NCAA athletes because even in the instances where the primary concern is keeping athletes eligible, these socializers are still providing academic support.

b) Receiving more messages from athletics personnel may predict higher professional sport expectations because these personnel may be either reinforcing low academic expectations (Feltz et al., 2013), limiting athletes' contact with people outside of athletics (Killeya, 2001), or trying to assist athletes with a pre-existing lack of academic motivation (Davis, 2013). If these staff members believe that the athlete's primary responsibility is to be ready to play in the game or that an athlete is incapable of performing in the classroom, they may attempt to guide the athlete toward playing professionally. Additionally, if the academic counselor does not see the purpose of placing whom he or she perceives to be a future professional athlete in a calculus class, they might guide the athlete toward less demanding classes, regardless of actual academic ability (L. Harrison et al, 2011). This can go unnoticed, especially if the athlete remains eligible to play and if they do not speak with advisors or others outside of the athletic department's support staff (Killeya, 2001). Finally, the coaches and academic support staff may find themselves trying to motivate students who are more focused on participating in sports at the professional level than they are at doing well in college. This may be the case for those who were not fully engaged in their high school classes and did not care to learn anything beyond what it took to get into college (Davis, 2013). Once in

college, such athletes realize they are underprepared and have little spare time to catch up to their peers in the classroom, so instead of changing their study habits, they may accept having their academic lives controlled by support staff.

Research Question 4. a) For college athletes (i.e. NCAA, Club Sport, and Intramural athletes), are there participation-level differences in athletic identity, the amount of time spent on sports/school, and professional sport expectations? b) For college athletes (i.e. NCAA, Club Sport, and Intramural athletes), do athletic identity, the amount of time spent on sports/school, or professional sport expectations predict grade point average for each participation level?

Hypotheses for Question 4. a) It is hypothesized that there will be between-group differences in athletic identity, time spent on sports/school, and professional sport expectations, with NCAA athletes having the highest athletic identity, professional sport expectations, and time spent on sports in- and offseason, and the lowest time spent on school, but only during their sport's season. b) It is anticipated that athletic identity will not predict GPA for any of the athlete groups. Also, professional sport expectations and the amount of time spent on sports are expected to have a negative impact on GPA, regardless of whether these hours are during the season/offseason, while the amount of time spent on school is expected to positively impact GPA, regardless of whether these hours are during the season/offseason.

Rationale for Question 4. a) In previous research, athletic identity was found to differ based on participation-level (Lamont-Mills & Christensen, 2006), with elite-level athletes scoring higher on the Athletic Identity Measurement Scale [AIMS] than those

athletes participating at lower levels and non-athletes. I anticipate this dissertation will generate similar findings. I also expect NCAA athletes to spend more time on sports in- and offseason because their athletic obligations and expectations are greater than for their peers, as they play on a larger stage. I anticipate that these pressures may also lead NCAA athletes to spend less time on school during the season, but the same amount of time on school once their athletic obligations lessen during their offseason. This finding could lead to a partial explanation for the results of a study that found that NCAA performed worse in the classroom during their season (Scott et al., 2008). Also, athletes who participate at a lower level may be doing so more recreationally as opposed to believing that his or her participation may be a potential avenue to a professional career.

b) It is anticipated that athletic identity will not predict GPA, because research has shown that even athletes participating at the same athletic level will have various academic abilities and motivations (Robbins, Bentley-Edwards, & L. Harrison, 2015; Woodruff & Schallert, 2008). Some athletes care mostly about school, some care mostly about sports, but there are plenty of athletes who strive to do equally well in both arenas. Additionally, the time spent on sports is expected to take away from the time and energy athletes can focus on school; this will likely have a negative effect on grade point average as was seen in the study on athletes' GPAs (Scott et al., 2008). Those who choose to spend more time studying will likely be better prepared for their classes than those who spend less time on school.

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Research Question 5. For NCAA athletes, do the number of hours spent on school during the season and sports during the offseason mediate the relationship between professional sport expectations and grade point average?

Hypotheses for Question 5. It is expected that having lower professional sport expectations will increase the number of hours spent on school during the athletic season, which will positively predict NCAA athletes' GPAs. It is also anticipated that having higher professional sport expectations will increase the number of hours spent on sports during the offseason, which will negatively impact NCAA athletes' GPAs. (see *Figure 3*.)

Rationale for Question 5. Since professional sport expectations likely have an impact on how much time an athlete will devote to sports during the season, these hours may also have an impact on how many hours can be focused on school. Since school likely matters more to athletes who choose to focus more hours on school during the time it is expected that sports be a major priority, I am anticipating that this increase in hours will lessen the expected negative relationship between professional sport expectations and grade point average.

Those who are devoting more hours to sports even when those hours are voluntary are likely reducing the amount of time they are able to spend on school. Since improving athletic performance is probably a priority for these athletes, they are devoting more time to sports at a time when school should be their main focus. These athletes likely have higher expectations of playing professionally, and these additional hours preparing for sports during the offseason could negatively impact their GPAs.
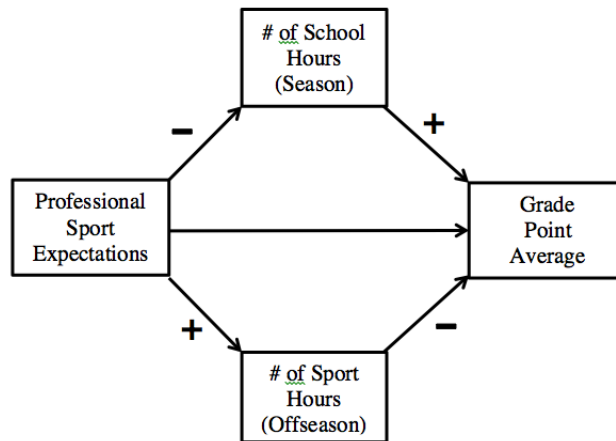
Figure 3. School Hours (In-season) and Sport Hours (Offseason) as Mediators of the Relationship Between PSE and GPA

Research Question 6. a) For NCAA athletes, are there racial group differences in the types of academic socialization reported or the amount of time spent on school/sports during the season and offseason? b) For NCAA athletes, are there racial group differences in athletic identity, professional sport expectations or grade point average? c) For NCAA athletes, are there gender differences in the types of academic socialization reported, the amount of time spent on school during the season/offseason, or grade point average? d) For NCAA athletes, are there gender differences in athletic identity, weekly time spent on sports, or professional sport expectations?

Hypotheses for Question 6. a) It is hypothesized that there will not be group differences in either the types of academic socialization reported or the amount of time spent on school based on race. b) It is also anticipated that athletic identity and professional sport expectations will be the highest among the Black group compared to

other racial groups. I predict that White athletes will have higher GPAs than male and Black students, respectively. c) It is hypothesized that there will not be group differences in either the types of academic socialization reported or the amount of time spent on school based on gender. I predict that female athletes will have higher GPAs than male athletes. d) It is expected that athletic identity, the amount of time spent on sports and professional sport expectations will be higher amongst the male group compared to the female group.

Rationale for Question 6. a) Since all athletes have access to members of the same academic support staff, I anticipate they will report having received similar amounts of academic socialization messages. Also, since previous research has shown that athletes have varying dispositions toward academics (Woodruff & Schallert, 2008), I expect all racial groups to contain students who dedicate various amounts of time to academic endeavors.

b) Additionally, as found in previous research (L. Harrison, Lee, & Belcher; Beamon & Bell, 2002), I hypothesize that Black NCAA athletes will have higher athletic identities and professional sport expectations. Black athletes are expected to have the lowest GPAs, as research has shown that they are more likely to be underprepared going in to college (Davis, 2013; C. Harrison et al., 2006). Their GPAs might also be effected by various psychological constructs that come into play as a result of professor, peer, or personal beliefs that stereotype Black athletes as subpar students (Stone, C. Harrison, & Mottley, 2012).

c) Since both male and female athletes have access to members of the same academic support staff, I anticipate they will report having received similar amounts of academic socialization messages. Also, since previous research has shown that athletes have varying dispositions toward academics (Woodruff & Schallert, 2008), I expect both gender groups to contain students who dedicate various amounts of time to academic endeavors. Males are expected to have lower GPAs, as research has shown that they are most likely to be the athletes most underprepared for college (Davis, 2013; C. Harrison et al., 2006). Their GPAs might also be effected by various psychological constructs that come into play as a result of professor, peer, or personal beliefs that stereotype male athletes as subpar students (Stone, C. Harrison, & Mottley, 2012).

d) Male athletes are also expected to have higher athletic identities, spend more time on sports and have higher professional sport expectations than female athletes. One reason for this prediction is that male athletes typically participate in higher profile sports during college, which may require more time. Another reason is that there are a greater number of professional sport opportunities for male athletes, which may lead many men to believe they can play at the next level. Due to their lack of professional opportunities and their ability to better balance both roles of the student-athlete identity (Feltz et al., 2013; Marx et al., 2008), I anticipate that the female NCAA athlete group will report a lower athletic identity compared to that of the male group. Female athletes are given many opportunities to incorporate athletic participation and the athlete role as a major part of how they are seen by themselves and others, but socializers also encourage them to develop a more balanced identity (Marx et al., 2008; Simons et al., 2007).

Research Question 7. a) For Black and White NCAA athletes, does the frequency of messages received from each socializing source predict GPA? b) For Black and White NCAA athletes, does the frequency of messages received from each socializing source predict professional sport expectations?

Hypotheses for Question 7. a) It was hypothesized that receiving more academic messages from sources that are affiliated with athletics would predict a lower grade point average for Black NCAA athletes, but not White NCAA athletes. b) It was hypothesized that receiving more academic messages from sources that are affiliated with athletics will predict higher professional sport expectations for Black NCAA athletes, but not White NCAA athletes.

   Rationale for Question 7. a) I am anticipating that the messages from coaches and academic support staff will consist mainly of academic involvement. This type of message has been found to have a negative association with academic performance. Since I expect Black athletes to receive more academic involvement from these sources, I expect these messages to affect the two groups differently.

   b) Receiving more messages from those affiliated with athletics might be indicative of higher professional sport expectations because academic personnel may be responding to pressures to help the best athletes remain eligible, so they can uphold the university's athletic reputation. Also, athletic personnel may need to provide more academic socialization to those NCAA athletes who want to play sports professionally and are investing more time in athletic pursuits. Additionally, those athletes who are most skilled athletically and have the greatest shot to play professionally may need the most

academic encouragement and assistance especially in cases where they are disinterested in classes they deem irrelevant or have been recruited or admitted under less stringent academic standards (Edwards, 2000). Since Black athletes are expected to have the higher professional sport expectations, I am anticipating differences between them and White athletes.

CHAPTER 3

Methods

The goal of this dissertation was to investigate the impact that various academic socializers and their academic messages have on the academic outcomes and professional sport expectations of NCAA student-athletes. In order to validate that this subpopulation of college students warrants exploration as a unique group, I first compared NCAA athletes to other groups of college students on campus. A primary goal of this analysis was to determine whether NCAA athletes receive the same amount of academic socialization from the same primary socializer as others on campus, and how these two factors impact their grade point average. I also intended to briefly examine whether the athletic identities of and hours spent on school and sports by NCAA athletes are different from what is found among other students who participate in athletic competition at various levels. Racial and gender group differences in these variables within the NCAA athlete group were also inspected in this dissertation.

Also of importance is the investigation of the impact of academic socialization and academic socializing sources on the professional sport expectations of athletes. This dissertation explored the effect of these professional sport expectations on athletes' grade point averages, and whether the time spent on school during the season and the time spent on sports during the offseason mediated this relationship. Overall, this dissertation was intended to be a study of ways in which NCAA athletes and their supporters can improve and ensure academic success. Analyzing which types of academic messages and which socializers contribute to academic success can aid in improving the transmission of

protective messages. Additionally, examining the role of professional sport expectations in the academic lives and outcomes of NCAA athletes can help socializers understand whether these expectations have a healthy or harmful academic impact.

Participants

Participants in this study were college students between the ages of 18 and 25 years old. Each student participates in at least one of three levels of university-affiliated athletic participation (i.e., NCAA, club sport, or intramural level) or does not participate in any sport that is affiliated with the university. Those who participate at the NCAA level compete against other schools and at the highest level offered by the university. NCAA athletes' competition, travel, coaches, use of facilities, etc. is managed and sponsored by UT Athletics. Club sports are the next highest level of competition. Although they are partially sponsored by the university and compete against other schools, their teams are organized and managed by student team members. Intramural participation is the lowest level of participation, as most of the competition takes place between university students. Practice is mandatory for NCAA athletes and is expected for many club athletes, while most intramural teams do not require any commitment outside of playing in the games. A variety of sports were represented at all athletic participation levels (see Table 1 for the demographic make-up of NCAA athletes by sport).

A priori power analysis was conducted using G*Power statistical software (Faul, Erdfelder, Buchner, & Lang, 2009) in order to determine the minimum sample size for a one-way ANOVA with 4 groups, as that will be the analysis in this study that requires the largest sample size. The power analysis indicated that in order to have an 80% chance of

detecting an existing medium effect size of .25 at an alpha level of .05, the total sample

size would need to be at least 200. The sample for the current study included a total of

448 students including 122 NCAA athletes, 104 club athletes, 119 intramural athletes,

and 103 non-athletes.

Table 1: Frequency of NCAA Participants by Sport

Sport	All NCAA	Black	White	Male	Female
Baseball	9	0	8	9	--
Basketball	10	7	3	6	4
Cross Country/Track	6	0	6	2	4
Football	41	28	11	41	--
Golf	1	0	1	1	0
Rowing	5	0	3	--	5
Soccer	4	1	3	--	4
Softball	6	2	4	--	6
Swimming & Diving	12	0	12	8	4
Tennis	4	0	3	0	4
Track & Field	18	10	8	10	8
Volleyball	6	4	3	--	6

Measures

Demographic questionnaire. Demographic information was collected from each

participant (see Appendix B). Participants were asked to report their gender,

race/ethnicity, age, class standing, grade point average, socioeconomic background,

athletic participation level, career aspirations, and the sports in which they participate.

They were also asked to indicate the number of hours they spend doing sports and school

during a typical week during the season and offseason. Career aspirations were measured

by asking the open-ended question, "What job do you think you will have 4 years after

you leave UT?" Information about career aspirations will be used for future studies.

Grade point average (GPA). There are many measures of academic achievement, but grade point average was utilized primarily because it is a common achievement metric for all university students, regardless of class standing or athlete status. This allowed for comparisons between students who operate in a similar environment. Additionally, not all students took the same standardized college entrance exam (i.e., they had a choice between the SAT and ACT), and trying to equate these measures is beyond the scope of this study. Finally, those standardized test scores might more accurately compare and predict the success of first-year students, but it is more challenging to make comparisons with those in a higher class standing. Student GPAs were self-reported in the form of an open-ended question. Participants were asked to indicate their cumulative GPA on a scale of 0.0 to 4.0.

Professional sport expectations. The athletic expectations of student-athletes were measured by simply asking the degree to which they agree with the statements: "I expect to play a sport professionally," "My coach expects me to play a sport professionally," and "My family expects me to play a sport professionally." Response options were on seven-point Likert-type scales ranging from strongly disagree (1) to strongly agree (7) (see Appendix B). Responses to the three items were averaged to create a total Professional Sport Expectations (PSE) score. For these three items, the $\alpha=.96$. Those who score highest on PSE not only have their own pro sport expectations, but also perceive that others have these same expectations for them. Instead of simply asking about their own expectations, this assessment used three items in order to examine the potential connection between the expectations of the student-athletes and those of two

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key socializing adults. Further analysis of the differences and similarities between the

three items will be conducted in a future study.

Table 2: List and Description of Measures

Measure	Description
Professional Sport Expectations	Measures degree to which participants perceive the expectation to play a professional sport by self, coach, and family 3 items Scale: Strongly Disagree (1) to Strongly Agree (7) alpha = .96
Athletic Identity (AIMS)	Measures degree to which participants identify with the athlete role 7 items Scale: Strongly Disagree (1) to Strongly Agree (7) alpha = .85
Academic Expectations/Aspirations	Measures expectation and aspiration of academic attainment (highest academic degree attained) 2 items Scale: Some College (1) to PhD or JD (4) alpha = .78
Value of Education	Measures participants' perceptions of the necessity of formal education for future success 5 items Scale: Strongly Disagree (1) to Strongly Agree (5) alpha = .66
Academic Involvement	Measures the degree to which others are involved in participants' education 8 items Scale: Strongly Disagree (1) to Strongly Agree (5) alpha = .87
Educational Encouragement	Measures the degree to which participants believe others provide encouragement and emotional support for academic difficulties 12 items Scale: Very Untrue (1) to Very True (6) alpha = .91
Primary Source of Socialization	The number of times a participant selects one of seven sources as a primary socializer for messages of academic involvement, educational encouragement, and the value of an education 25 items Response Items: Parents/Family, Professor, Coaches, Peers, Academic Counselor/Mentor, No One, Other

Athletic identity. Athletic identity was measured using items from the Athletic Identity Measurement Scale [AIMS] (Brewer, Van Raalte, & Linder, 1993), which was created to assess how strongly one identifies as an athlete. While the original measure had ten items, Brewer and Cornelius (2001) later assessed the items and found that only seven of the items worked well after compiling ten years of aggregated data, therefore this study used the 7-item AIMS (see Appendix B), which was previously shown to have an internal consistency of $\alpha=.76$ (Visek, Hurst, Maxwell, & Watson, 2008). For this dissertation, the $\alpha=.85$. The scale used a seven-point Likert-type scale to measure the participants' level of agreement with statements that described the role of sports in various areas of one's life, such as identity, goals, friendship, and emotions. The seven responses were combined for a total athletic identity score. Student-athletes who scored high in athletic identity were those who not only see themselves as athletes, but also view many areas of their life through an athletic lens and are invested in athletic outcomes. Those who scored low on athletic identity are those who rarely play sports, do not see themselves as athletes, and are not invested in their athletic outcomes.

Academic socialization. For the purpose of this study, academic socialization was assessed based on student-athlete's responses to questions in four categories of academic socialization: *academic expectations/aspirations* of the student-athlete, the student-athlete's perceived *value of an education*, *academic involvement* of socializing agents, and *educational encouragement* by socializing agents. While these measures all fit under the same umbrella of academic socialization, scores on the measures were not

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combined as one construct. I chose not to combine them for a number of reasons –

primarily because only two of the four measures share the same authors. Additionally, the

scoring structure of the items is different and depending on the scale, the response

options could vary from four to six choices. Also, confirmatory factor analysis has not

been conducted to support the measurement model structure and was beyond the scope of

this dissertation. Finally, academic involvement and educational encouragement are both

measures of others' behavior, while academic expectations/aspirations and value of an

education can both be seen as possible displays of the internalization of behavioral and

other messages. Involvement and encouragement can be seen as present actions, while

expectations/aspirations and value of education are likely a result of a combination of

present and past socialization.

Academic expectations/aspirations were measured using two items that ask

students how far they would like to go in school and how far they will actually go in

school. The ordered response scale options ranged from some college to obtaining a

doctoral/ professional degree, with the former being scored as the lowest response and the

latter being scored as the highest (see Appendix B). This measure was a modified version

of the one used in the article by Jodl, Michael, Malanchuk, Eccles, and Sameroff (2001),

with the only difference being in the response options. The original measure was shown

to have internal consistency in a large sample of middle school students, with an alpha of

.83. In this population the alpha was .78.

As the original study claimed, lower academic expectations could be a sign of the

internalization of messages that communicate lower expectations from socializing agents

(Jodl et al., 2001). The difference between the two items will be analyzed for group disparities for a future study. Each item will be used to compare group means, but only academic expectations used as a predictor in regressions since expectations have been associated with academic outcomes in previous research (Suizzo et al., 2012; Charles et al., 2007) and because this study used pro sport expectations and not aspirations.

The *value of an education* by participants was measured by using another scale from the study by Jodl et al. (2001). The Value of an Education for the Future Scale is a five-item Likert-type scale with questions designed to gauge the participants' perceptions of the necessity of formal education for their future success (see Appendix B). Students were asked for their level of agreement with such items as: "I have to do well in school if I want to be a success in life," and "Schooling is not so important for [people] like me." In the Jodl et al. (2001) study, the internal consistency was measured at $\alpha=.69$, while alpha was equal to .66. The original items were modified to use school-level appropriate nouns, as the original measure was given to seventh graders. Though I initially questioned the internal consistency of this scale, I found that it was also adapted for use in another study (Irvin et al., 2011). The five items were scored and the sum of the items was used to create a Value of Education score. For this study, a question was added to each item in order to identify the primary source of these value messages; this was assessed separately. Students with low scores on the value of education measure did not believe that obtaining an education was important to ensuring their future success. This could mean that either their preferred non-athletic career only requires certification or

very little post-secondary education, but since these students are attending a university, it could be a sign that they plan to have a career in athletics.

The *academic involvement* of socializing agents was measured by asking students a number of questions about the degree to which others help them to be academically successful. A modified version of the Academic Involvement Scale (Régner, Loose, & Dumas, 2009) was used to measure the degree to which others were involved in participants' education. This 8-item scale was designed to measure students' perceptions of parent and teacher involvement (i.e., academic support and academic monitoring) in their academics (see Appendix B). In their study, the internal consistencies were $\alpha=.75$ (parental academic support), $\alpha=.73$ (parental academic monitoring), and $\alpha=.82$ (teacher support and monitoring combined) for the three factors. As a unidimensional scale in this dissertation, the $\alpha=.87$. Items for this measure included: "Someone monitors whether I have done my homework," and "Someone talks to me about my academic problems." The original measure used a five-point Likert-type scale to assess the degree to which students agreed with statements about the types of academically helpful behavior in which their parents or teachers were involved. The scale was modified to ask, more generally, if someone does these behaviors. Responses will be combined in order to create a total Academic Involvement score for each participant. Additionally, a question was added to each item so that students were able to identify which socializing agent (i.e., parent/family, professor, coach, peer, academic counselor/mentor, other, or no one) does each behavior most frequently. This portion of the measure was assessed separately from

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the original scale. Those who have high scores in academic involvement have others who monitor and actively support their academic undertakings.

It is important to note that socializing agents may be focused on the academic outcomes of student-athletes for a number of reasons. This measure cannot differentiate between those reasons, as two socializers with completely different motives could generate similar scores. A socializer might be concerned with an athlete's grades because they want or expect them to do well regardless of their athlete status, or a socializer might monitor an athlete's grades because they want to make sure that the athlete maintains eligibility. Keeping this in mind, it was still important to explore whether athletes reported receiving these messages because regardless of the socializer or their motives, these messages might still be beneficial. This dissertation examined participants' perceptions of academic socialization, but determining the motives of socializers was beyond the scope of this study.

The final gauge of academic socialization was a measure of the *educational encouragement* of student-athletes by their socializing agents. This measured using a modified version of the Student Report of Parental Encouragement Scale (Hoover-Dempsey & Sandler, 2005), which was shown to be reliable in their study on a racially diverse set of children with $\alpha=.87$ and in a separate study on African American adolescents with $\alpha=.82$ (Cooper & Smalls, 2010). In this dissertation the alpha was equal to .914.

Participants were asked to respond to statements that assess academic encouragement with a six-point scale ranging from very untrue (1) to very true (6) (see

Appendix B). The initial measure used a four-point scale, but this study instead used a six-point scale in order to gain a more nuanced view of the students' responses. The items were modified to remove the phrase, "in my family," so that the statements could be used to generically describe any socializing agent. The following are examples of items from this scale: "The people who usually help me in school encourage me when I don't feel like doing my schoolwork," and "The people who usually help me in school encourage me to try new ways to do schoolwork when I'm having a hard time." The responses to the twelve items were combined to generate an Educational Encouragement score. Those who obtained high scores on educational encouragement had socializers who provide emotional support and help them build academic resilience in case they need to persist through academic difficulties. As on the previous measures, participants were asked to identify those who encourage them most frequently, and this was assessed separately.

Primary source of socialization. Participants' perceptions of the sources of their academic socialization were collected on three out of the four measures of academic socialization: value of education, academic involvement, and educational encouragement. Primary source of socialization was not measured for academic expectations/aspirations because these questions specifically ask participants what they think and what they would like, as opposed to asking them what others think they should do academically. Given the value this society places on claiming independence, it is likely that many of the students would not able to disentangle how much of these desires were their own and how much belonged to others.

The frequency of responses was tallied for each of the socializing agents, in subgroups based on each measure, and overall, in order to identify which agents are perceived to have the most socializing influence on the academic outcomes of participants. The seven categorical response options used were: parent/family, professor, coach, peer, academic counselor/mentor, no one, and an open-ended option to specify any other source.

Procedures

This study followed the guidelines for human subjects research set forth by the Institutional Review Board at the University of Texas at Austin. Participants were recruited via the University of Texas at Austin Educational Psychology Department subject pool. Data was collected over four semesters: Fall 2013, Spring 2014, Fall 2014, and Spring 2015. The majority of data collection happened during the first two semesters, and the final two semesters of data were collected in order to more closely balance the number of NCAA athletes with the number of participants in other groups in the sample. Qualtrics was used to create and disseminate an online version of the measurement packet. Those who were assigned to participate in this study were provided a link to the survey. Participants were first given information about the proposed study (see Appendix A) and then asked to give their electronic consent before proceeding to the demographic questionnaire and other measures (see Appendices B). They were given the option to drop out of the study, without penalty, at any time or to complete an alternative assignment instead of participating in this study.

An online survey was chosen so that participants could take it anywhere and at any time. In an effort to ensure that the survey was not daunting for those who may already have busy schedules, I attempted to select measurements that were not time intensive. For most participants, the survey took less than 15 minutes to complete. Their responses were anonymous and once they were given credit for participating, identifying information was separated from their responses. Participants were given credit even in cases where incomplete data was submitted. Since participants were members of the subject pool, they received partial credit toward the completion of a course requirement of participation in subject pool research.

Analytical Strategy

Preliminary analyses. Prior to conducting the primary analyses, preliminary analyses were performed in order to ensure that the data complied with all of the appropriate statistical assumptions. The assumptions that were tested are univariate and bivariate normality, homoscedasticity, and the linearity of the criterion/predictor variable relationships. Descriptive statistics were investigated by inspecting the mean, standard deviation, maximum and minimum of each variable, and all demographic characteristics prior to conducting primary analyses. A scatterplot of each variable was inspected for normal distribution, proper variance, linearity, and the identification of potential outliers. Computing z-score residuals to gauge the score's deviation from the mean was used to identify outliers. The final preliminary test was an inspection of variable correlations in order to ensure the absence of significant multicollinearity.

Primary analyses. Upon completion of preliminary analyses, primary analyses were conducted in order to test the hypotheses. Analyses of variance was used for hypothesis testing, because it allowed me to compare group mean differences as well as the variance within and between groups. I was able to determine whether the group differences in means were either so small that they may have happened by chance or if the differences were large enough that it is more likely that they were the result of group membership.

Multiple regression was used to test some hypotheses because these tests allowed me to measure the effects of multiple predictor variables on one outcome variable at the same time, while controlling for possible confounding variables. This statistical test helped me to estimate the amount of variance that was explained by each variable in the model. The final statistical analysis to be used is a single-step multiple mediator model, which was used to measure the indirect effects of professional sport expectations on grade point average, while simultaneously accounting for the mediating effects of the number of hours spent on school during the season and the number of hours spent on sports during the offseason. The following were the methods for testing each hypothesis:

Hypothesis 1a. *It is anticipated that there will be athletic participation group differences in the types of messages reported, with NCAA athletes receiving more messages of academic involvement and educational encouragement than any of the other groups.* In order to test this hypothesis, participants were separated into groups based on participation level (i.e., NCAA, Club Sport, Intramural, and Non-athlete) and an ANOVA was conducted in order to test for group differences in means. A significant test meant

that group differences existed, and that pairwise comparisons must be conducted. To control for the possible inflation of Type I error that is associated with doing multiple pairwise comparisons, the Bonferroni correction was used to adjust alpha to a more stringent level. The hypothesis was supported if there were significant group differences in academic involvement and educational encouragement, but not the value of education, and if pairwise comparisons indicated that NCAA athletes report significantly higher academic involvement and educational encouragement than all of the other groups.

Hypothesis 1b. *It is anticipated that not all groups will rely on the same primary socializers, as NCAA athletes will report academic mentors/counselors as a primary socializer.* I tested this hypothesis by splitting the participants up into participation-level groups and calculating the frequency for which participants indicated that each source was their primary socializer for each message of academic involvement, educational encouragement, and the value of an education. A series of ANOVAs was conducted in order to identify group mean differences in selecting each socializing agent. When group effects were significant, pairwise comparisons were conducted to see which specific groups differed. This hypothesis was supported if NCAA athletes selected academic counselor/mentor significantly more frequently than other participants, while the other groups do not differ in their selection of any of the primary socializers.

Hypothesis 2a. *It is hypothesized that all types of academic socialization will positively predict GPA, with the exception of academic involvement, which is hypothesized to have an inverse relationship with GPA in all groups, except for the NCAA group.* I tested this hypothesis by dividing participants into groups based on

participation level and conducting a multiple regression with academic expectations, value of an education, academic involvement, and educational encouragement as independent variables for GPA, which will be the dependent variable. Both gender and SES were used as control variables, to account for their potential impact on grade point average. I will know that the hypothesis was supported if all beta weights were significant and the betas for academic expectations, value of an education, educational encouragement were each positive, while the beta for academic involvement was negative for all groups other than the NCAA group. For the NCAA group, the beta weight for academic involvement was positive if the hypothesis was confirmed.

Hypothesis 2b. *It is anticipated that all forms of academic socialization will have an inverse relationship with professional sport expectations, except for academic involvement, which is hypothesized to have a positive relationship with professional sport expectations, but only in the NCAA athlete group.* I tested this hypothesis by splitting participants into groups based on participation level and conducting a multiple regression with academic expectations, value of an education, academic involvement, and educational encouragement as predictors for the outcome variable of professional sport expectations. I controlled for gender and SES to account for their possible impact on professional sport expectations. The hypothesis was supported if all beta weights were significant and negative in all groups except for the NCAA athletes. In order to support the hypothesis, the NCAA athlete group has significant negative beta weights for academic expectations, value of an education, and educational encouragement, but a significant positive beta for academic involvement.

Hypothesis 3a. *It is expected that regardless of the source, the frequency of academic socialization messages received from others will predict higher GPAs for each participation-level group.* Based on participation level, participants were divided into groups at which time I conducted a multiple regression with the number of messages received by each socializing source (i.e., parent/family, professor, coach, peer, academic counselor/mentor) as the five predictors for the criterion variable of GPA. I controlled for the potential effects of SES and class standing on grade point average. If the beta weights were significant and positive for all socializers in all participation levels, then the hypothesis was supported.

Hypothesis 3b. *It is hypothesized that receiving more messages from socializers who may be affiliated with athletic participation (i.e., coaches and academic counselors/mentors) will predict higher professional sport expectations in each participation-level group.* Participants were divided into participation-level groups prior to conducting a multiple regression analysis with the number of messages received by each socializing source (i.e., parent/family, professor, coach, peer, academic counselor/mentor) as the five predictors for the criterion variable of professional sport expectations. I controlled for the effect of SES and class standing on professional sport expectations. To support the hypothesis, the coaches and academic counselor/mentor predictors had significant positive beta weights for all groups, while the other predictors had betas that were negative or not significant predictors of professional sport expectations.

Hypothesis 4a. *It is hypothesized that there will be between-group differences in athletic identity, time spent on sports/school, and professional sport expectations, with NCAA athletes having the highest athletic identity, professional sport expectations, and time spent on sports in- and offseason, and the lowest time spent on school, but only during their sport's season.* To test this hypothesis I conducted ANOVAs in order to test for significant differences in the groups' means. If any of these tests were significant, I used pairwise comparisons to determine which group means were different. The hypothesis was supported if ANOVAs indicated significant differences within the groups and pairwise comparisons indicated differences between the NCAA group and the other two groups in athletic identity, professional sport expectations, hours spent on sports in- and offseason, and the hours spent on school during the season. The NCAA group needed to have a group mean that was significantly higher than each of the other two groups on athletic identity, professional sport expectations, and the time spent on sports. The NCAA group also had a group mean for hours spent on school during the season that was significantly lower than the other two groups, in order to support the hypothesis. Finally, the difference between the hours NCAA athletes spent on school during their offseason was not significantly different from either of the other two groups of athletes if the hypothesis is true.

Hypothesis 4b. *It is anticipated that athletic identity will not predict GPA for any of the athlete groups. Also, professional sport expectations and the amount of time spent on sports are expected to have a negative impact on GPA, regardless of whether these hours are during the season/offseason, while the amount of time spent on school is*

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expected to positively impact GPA, regardless of whether these hours are during the season/offseason. In order to test this hypothesis, athletes were divided by participation-level (i.e., NCAA, Club Sport, Intramural) prior to conducting multiple regressions with athletic identity, professional sport expectations, hours spent on sports during the season, hours spent on sport during the offseason, hours spent on school during the season, and hours spent on school during the offseason each as predictors for an outcome variable of GPA. I controlled for the effects of gender, SES, and class standing on grade point average. The hypothesis was supported if athletic identity was not a significant predictor of GPA, the beta weights for the number of hours spent on school during the season/offseason were positive and significant, and if the beta weights for professional sport expectations and the number of hours spent on sports during the season/offseason were significant negative predictors of GPA. To support the hypothesis, these findings had to be true for all three groups of athletes.

Hypothesis 5. *It is expected that having lower professional sport expectations will increase the number of hours spent on school during the athletic season, which will positively predict NCAA athletes' GPAs. It is also anticipated that having higher professional sport expectations will increase the number of hours spent on sports during the offseason, which will negatively impact NCAA athletes' GPAs.* These hypotheses were tested utilizing data solely from the NCAA athletes and using a single-step multiple mediator model (see *Figure 3*) to assess whether the hours dedicated to school during the season and the hours dedicated to sports during the offseason mediated the relationship

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between professional sport expectations and grade point average. Athletic identity was used as a control variable to account for its impact on grade point average.

The first part of the hypothesis was supported if the specific indirect effect of professional sport expectations on GPA through the number of hours spent on school during the season was significant. According to Hayes (2009), this can be determined by bootstrapping instead of using Sobel's test, because bootstrapping does not make assumptions about the shape of the indirect effect's sampling distribution, and it can still be used in cases where there are multiple indirect paths. For my model, there were multiple indirect paths between professional sport expectations and GPA. Bootstrapping is particularly useful when working with smaller samples, because it creates a confidence interval for possible estimates of indirect effects by randomly selecting a predetermined number of bootstrapped samples from the original sample. This simulates the indirect effects that might have been generated given a larger sample. For the current study, the number of bootstrap samples was 5,000 as suggested by Preacher and Hayes (2008). In order to determine significance and that $p < .05$, the indirect effect estimates were examined to ensure that zero was not present in the bias corrected 95% confidence interval (Hayes, 2009). The same approach was used to determine the significance of the specific indirect effect of professional sport expectations on GPA through the number of hours spent on sports during the offseason and to confirm the second part of the hypothesis.
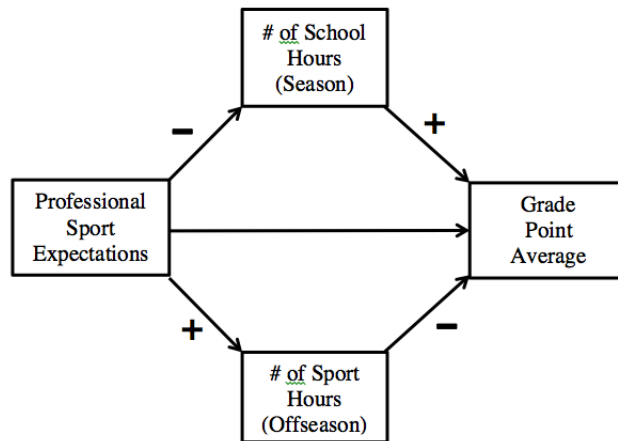
Figure 3. School Hours (Season) and Sport Hours (Offseason) as Mediators of the Relationship Between PSE and GPA

Hypothesis 6a-d. a) *It is hypothesized that there will not be group differences in either the types of academic socialization reported or the amount of time spent on school based on race. b) It is also anticipated that athletic identity and professional sport expectations will be the highest among the Black group compared to other racial groups. I predict that White athletes will have higher GPAs than male and Black students, respectively. c) It is hypothesized that there will not be group differences in either the types of academic socialization reported or the amount of time spent on school based on gender. I predict that female athletes will have higher GPAs than male athletes. d) It is expected that athletic identity, the amount of time spent on sports and professional sport expectations will be higher amongst the male group compared to the female group.* This collection of hypotheses was tested by first dividing the NCAA athletes into racial groups and conducting ANOVAs for the desired variables: types of academic socialization reported, GPA, athletic identity, the amount of time spent on sports/school, and

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professional sport expectations. For the hypothesis to be supported, there had to be significant group differences in athletic identity, professional sport expectations, and GPA. Also, the Black group needed to have significantly higher group means for athletic identity and professional sport expectations, and a significantly lower mean GPA than the White group. Neither group could have displayed an advantage in their group mean for the types of academic socialization reported or the amount of time spent on school/sports.

Upon completion of the previous analysis, NCAA athletes were no longer divided by race, but instead grouped by gender. Again, a set of ANOVAs were conducted for types of academic socialization reported, GPA, athletic identity, the amount of time spent on sports/school, and professional sport expectations. In order to support the hypothesis, the male group had significantly higher group means on athletic identity, time spent on sports and professional sport expectations and a lower mean GPA than the female group. If the hypothesis was supported, there were no significant group differences in type of academic socialization reported or the amount of time spent on school.

Hypothesis 7a-b. *It is anticipated that for Black NCAA athletes, receiving more messages from sources that are affiliated with athletics (i.e., coach and academic counselor/mentor) will predict lower grades. It is anticipated that for Black NCAA athletes, receiving more messages from sources that are affiliated with athletics (i.e., coach and academic counselor/mentor) will predict higher professional sport expectations. Receiving messages from all other sources will predict lower professional sport expectations.* Two separate multiple regression analyses were conducted using only the Black NCAA athletes and then two more using only White NCAA athletes in order to

test this hypothesis. The frequency of messages from each socializing source served as the independent variables, while GPA served as the dependent variable for the first analysis and professional sport expectations served as the dependent variable for the second. The hypothesis was supported if the beta weights for coach and academic counselor/mentor were both significant and positive, while the betas for all other sources were either negative or not significant.

CHAPTER 4

Results

Preliminary Analyses

Preliminary analyses were conducted in order to test appropriate statistical assumptions. The means, standard deviations, maximums, and minimums appeared to be normal for each variable of interest. A scatterplot for each variable was inspected for any abnormalities in distribution, outliers, proper variance, and linearity. Based on residual scores, one outlier found in the weekly number of hours spent on sports during the season, but the case was not excluded as a sensitivity analysis because it was revealed that it would not have a major impact on the analysis.

The number of messages received from a coach far exceeds the suggested ranges for skewness and kurtosis, but this is not surprising given the fact that many of the participants do not receive academic messages from coaches. Variable transformation is sometimes suggested in these scenarios. But if the variable is commonly known and skewed due to strange circumstances (e.g., coaches do not provide many messages to anyone, but especially non-NCAA athletes), transformation is not recommended (Kline, 2005). Additionally, the effect of a significant kurtosis on regression estimates will be minimal (Lomax, 2000). The variables were also inspected for multicollinearity, but since none of the variables were highly correlated. Using $r = .9$ as a cutoff (Kline, 2005), this was not an issue. The correlation between the amount of time spent on school season/offseason ($r = .86$) and the amount of time spent on sports season/offseason ($r =$

.86) were strongly associated, therefore, mean-centering was employed on all regression

predictor variables in an effort to reduce the potential effects of multicollinearity.

Descriptive Statistics

After completing preliminary analyses, descriptive statistics were assessed for any

abnormalities in the demographic composition (see Table 3 for sample demographics,

Table 4 for group demographics, and Table 5 for NCAA athletes by sport), means, and

standard deviations of the sample. Two of the groups (i.e., NCAA and Intramural)

contained more men than women. Since most of the main analyses conducted do not

include gender comparisons, the impact of gender on the results was likely negligible. As

a precaution, gender was used as a control variable on a number of analyses. It should

also be noted that the NCAA group was comprised of significantly more Black

participants than each of the other groups. An overrepresentation of Black participants in

the NCAA group compared to the other groups is representative of the general population

at data collection site. The NCAA group also contained more students who were in their

first year of school than the other groups. To lessen the possible impact of this

overrepresentation, class standing (i.e., First-year, Sophomore, Junior, and Senior) was

used also used as a control variable for numerous analyses as noted in their respected

analyses.

Table 3: Participant Demographics

Gender	Frequency	Percent
Women	173	38.6
Men	274	61.3
Racial/Ethnic Group		
Asian American	74	16.5
Biracial/Multiracial	11	2.5
Black/African American	67	15.0
Hispanic/Latino American	72	16.1
White/European American	219	48.9
Other	5	1.1
Socioeconomic Background		
No Income	8	1.8
Low Income	50	11.2
Middle Income	185	41.3
Upper Middle Income	158	35.3
High Income	46	10.3
Participation Level		
NCAA Sport	122	27.2
Club Sport	104	23.2
Intramural Sport	119	26.6
No Sport	103	23.0
Class Standing		
First-year	64	14.3
Sophomore	85	19.0
Junior	119	26.6
Senior	176	39.3

Table 4: Participant Demographics by Group (in %)

Gender	NCAA	Club	Intramural	No Sport
Women	36.9	47.1	22.7	50.5
Men	63.1	51.9	77.3	49.5
Racial/Ethnic Group				
Asian American	0.8	18.3	26.9	21.4
Black/African American	42.6	2.9	3.4	7.8
Hispanic/Latino American	4.1	21.2	18.5	22.3
White/European American	50.8	47.1	49.6	47.6
Other	1.6	10.6	1.7	1.0
Socioeconomic Background				
No Income	4.1	1.0	0.8	1.0
Low Income	8.2	13.5	5.9	18.4
Middle Income	49.2	36.5	38.7	39.8
Upper Middle Income	28.7	41.6	42.9	28.2
High Income	9.8	7.7	10.9	12.6
Class Standing				
First-year	31.1	6.7	9.2	7.8
Sophomore	21.3	16.3	21.8	15.5
Junior	23.8	26.9	28.6	27.2
Senior	21.3	50.0	40.3	48.5

Table 5: Frequency of NCAA Participants by Sport

Sport	All NCAA	Black	White	Male	Female
Baseball	9	0	8	9	0
Basketball	10	7	3	6	4
Cross Country/Track	6	0	6	2	4
Football	41	28	11	41	0
Golf	1	0	1	1	0
Rowing	5	0	3	0	5
Soccer	4	1	3	0	4
Softball	6	2	4	0	6
Swimming & Diving	12	0	12	8	4
Tennis	4	0	3	0	4
Track & Field	18	10	8	10	8
Volleyball	6	4	3	0	6

Correlations were also inspected, revealing a number of significant associations (see Table 6 for sample correlations and Table 7 for athlete group correlations). Class standing was significantly negatively correlated with educational encouragement, academic involvement, professional sport expectations (PSE), and athletic identity. Additionally, GPA was significantly positively associated with valuing education and with being a woman, and was negatively correlated to academic involvement, PSE, athletic identity, and receiving academic messages from coaches or academic counselors/mentors. There were also positive associations between academic involvement and the following variables: educational encouragement (large), PSE (moderate), and receiving academic messages from counselors/mentors (moderate).

Within Group Descriptives. Within the three athlete groups (i.e., NCAA, Club, and Intramural), professional sport expectations were negatively correlated with class standing (moderate), GPA (small), and SES (small). Also, PSE was positively correlated with the weekly number of hours spent on sports during the offseason (large). Additionally, both the weekly amount of hours spent on sports during the season and during the offseason were negatively linked to class standing (small) and grade point average (small).

Table 6: Correlations Among Demographic and Academic Socialization Variables for All Groups

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Gender	-																			
2. Race/Ethnicity	.09	-																		
3. Age	-07	-05	-																	
4. Class Standing	.02	-09	.82***	-																
5. GPA	.13**	.11*	-09	.06	-															
6. SES Background	.06	.29***	-03	-05	.06	-														
7. Participation Level	.03	-07	.21***	.23***	.13**	.17***	-													
8. Acad. Aspirations	.06	-09	.05	.07	.02	-03	.05	-												
9. Acad. Expectations	.05	-06	.05	.09	-05	.03	.01	.68***	-											
10. Ed. Encouragement	.08	.04	-.16**	-.17***	-03	.14**	-.11*	-02	-20	-										
11. Value of Ed.	.22**	.04	-.12*	-10	.18***	.08	.08	.05	.02	.16**	-									
12. Acad. Involvement	.15**	.05	-.25***	-.27***	-.20***	-03	-.36***	-01	-03	.51***	-06	-								
13. PSE	-.11*	-02	-.24***	-.29***	-.21***	-03	-.63***	-08	-03	.11*	-18	.39***	-							
14. Athletic Identity	-.18***	.09	-.10*	-.19***	-.22***	.03	-.65***	-.13**	-05	.05	-.14**	.29***	.55***	-						
15. Family/Parent	-03	.12*	-03	.03	.07	.17***	.15**	-00	-03	.31***	.03	.16**	-.18**	.13***	-					
16. Professor	.03	.01	.08	.10*	.04	-10*	.19***	.08	.08	.06	-01	.02	-.18**	-09	-07	-				
17. Coach	-03	.00	-.13**	-.13**	-.16**	-.10*	-.28***	-06	.05	-.13**	-04	.22***	.35***	.23***	-.31***	.04	-			
18. Peer	-01	-.14**	.05	.08	-04	-10*	.18***	.08	.05	-03	-04	-09	-.17***	-.12*	-06	-.02	-.02	-		
19. No One	-02	-06	.20***	.16**	.12*	-03	.16**	-02	-01	-.48***	.07	-.61***	-.21***	-.12*	-.44***	-.15**	-.18***	-.05	-	
20. Mentor/Counselor	.01	.05	-.23***	-.29***	-.12*	-05	-.51***	-09	-05	.19***	.04	.44***	.49***	.37***	-.35***	-.23***	.03	-.27***	-.21***	-

Note. PSE = Professional Sport Expectations

*p < .05, **p < .01, ***p < .001

Table 7: Correlations Among Demographic Variables and Weekly Hours on School/Sports

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	-												
2. Race/Ethnicity	.10	-											
3. Age	-.12*	-.08	-										
4. Class Standing	-.01	-.10	.84***	-									
5. GPA	.12*	.11	-.07	.01	-								
6. SES Background	.08	.32***	.00	.08	.19**	-							
7. Participation Level	-.12*	-.11	.22***	.23***	.15**	.12*	-						
8. Pro Sport Expectations	-.08	.00	-.25***	-.30***	-.23***	-.27***	-.69***	-					
9. Athletic Identity	-.05	.05	-.10	-.16**	-.25***	-.05	-.54***	.55***	-				
10. Sport Hours (Season)	-.04	.08	-.16**	-.17**	-.14*	-.14*	-.78***	.62***	.47***	-			
11. Sport Hours (Offseason)	-.06	.06	-.21***	-.22***	-.20***	-.21***	-.73***	.65***	.47***	.86***	-		
12. School Hours (Season)	.10	-.04	-.07	-.06	.04	.10	.10	-.10	-.13*	-.07	-.04	-	
13. School Hours (Offseason)	.10	-.07	-.07	-.03	.05	-.03	.03	-.03	-.07	.03	.03	.86***	-

Note. *$p < .05$, **$p < .01$, ***$p < .001$
PSE = Professional Sport Expectations

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Main Analyses

Hypothesis 1a. It was anticipated that there would be athletic participation group differences in academic involvement and educational encouragement, but not educational expectations, educational aspirations, or value of education. The NCAA group was expected to report more involvement and encouragement than all other groups. A one-way analysis of variance was conducted in order to test for significant between-group differences in academic expectations, academic aspirations, academic involvement, educational encouragement, and the value of education, with level of participation (i.e., NCAA, Club, Intramural, and No Sport) as the independent grouping factor.

Results revealed that there were significant group differences in academic involvement [$F(3, 425) = 42.47, p < .001$] and educational encouragement [$F(3, 404) = 2.97, p = .03$]. Post-hoc comparisons were conducted to determine which group means were statistically significant, and the Bonferroni correction was used to control for the inflation of the Type I error rate. Analyses indicated that, on average, the NCAA group reported experiencing significantly more academic involvement than the Club ($p < .001$), Intramural ($p < .001$), and No Sport $p < .001$) groups (see Table 8 for group means and ANOVA results). The NCAA group also reported significantly more educational encouragement than the Intramural group ($p = .02$). There were not significant between-group differences in academic aspirations, academic expectations, or the value of education.

Table 8: Hypothesis 1a – Means, Standard Deviations, and Analyses of Variance for GPA and Types of Academic Socialization

Variable	All Groups M (SD)	NCAA M (SD)	Club M (SD)	Intramural M (SD)	No Sport M (SD)	df	F	p	η_p^2
Grade Point Average (GPA)	3.17 (0.51)	3.07 (0.48)	3.14 (0.55)	3.25 (0.50)	3.23 (0.51)	(3, 424)	**2.90**	**.04***	**.020**
Academic Aspirations	2.83 (0.87)	2.68 (0.81)	2.99 (0.91)	2.83 (0.85)	2.84 (0.89)	(3, 444)	2.44	.06	.016
Academic Expectations	2.75 (0.82)	2.66 (0.76)	2.87 (0.90)	2.78 (0.80)	2.70 (0.83)	(3, 444)	1.41	.24	.009
Academic Involvement	26.50 (7.08)	32.21 (5.09)	24.14 (7.15)	24.61 (6.24)	24.70 (6.39)	(3, 425)	**42.48**	**< .001***	**.231**
Educational Encouragement	52.68 (10.51)	55.07 (9.44)	52.29 (11.90)	51.00 (9.16)	52.26 (11.35)	(3, 404)	**2.97**	**.03***	**.022**
Value of Education	18.63 (3.47)	18.23 (3.30)	18.54 (3.57)	18.87 (3.55)	18.94 (3.45)	(3, 433)	1.03	.38	.007

Note. *$p < .05$, ***$p < .001$
Academic Aspirations- Min: 1; Max: 4
Academic Expectations- Min: 1; Max: 4
Academic Involvement- Min: 5; Max: 40
Educational Encouragement- Min: 12; Max: 72
Value of Education- Min: 5; Max: 25

Given the results, Hypothesis 1a was partially supported. The NCAA group did

indicate experiencing more educational encouragement than the Intramural group and

more academic involvement than all other groups. As expected, the NCAA group did not

differ in their valuing of education, academic expectations, or academic aspirations.

Hypothesis 1b. It was hypothesized that not all groups would rely similarly on

primary socializers, and that the NCAA group would report more academic socialization

from academic mentors/counselors than the other groups. To test this hypothesis,

frequencies were calculated for each socializing source (i.e., parent/family, coach,

professor, peer, academic counselor/mentor, and no one) and group means were

computed for each socializer (see Table 9 for means and percentages by group). Several

one-way analyses of variance were conducted to test between-group differences in

selection of primary socializing source and participation level was used as the grouping

variable. Analyses showed significant between group differences in selection of

parents/family, coaches, professors, peers, and academic counselors/mentors (see Table

10 for group means and ANOVA results).

Post-hoc analyses were also conducted to identify significant group differences.

The NCAA group reported receiving significantly fewer academic socialization messages

from family than the Club ($p = .02$), Intramural ($p < .001$), No Sport ($p = .03$) groups.

The NCAA group also reported coaches and academic counselors/mentors as academic

socializers more frequently than did the Club, Intramural, and No Sport groups. The

standard deviation for the selection of academic counselors/mentors as the primary

provider of academic messages was noticeably greater among NCAA athletes compared

to those participating at other levels. The NCAA group reported receiving fewer academic messages from professors and peers than the Club, Intramural, and No Sport groups. There were no significant differences between any of the non-NCAA groups for any of the academic socializers.

Analysis revealed differences between the average frequencies that socializers were selected by the NCAA group compared to the other participation level groups. The NCAA group reported receiving fewer academic messages from family, professors, and peers and more academic messages from coaches and academic counselors/mentors than all other groups. *Given the fact that NCAA athletes reported receiving more academic messages from academic counselors/mentors than all other groups, Hypothesis 1b was supported.*

Hypothesis 2a. It was hypothesized that all types of academic socialization would positively predict grade point average, except for academic involvement. Academic involvement was expected to negatively predict GPA in the Club, Intramural, and No Sport groups. A multiple regression was conducted using academic expectations, value of an education, academic involvement, and educational encouragement as independent variables, grade point average as the dependent variable, and controlling for gender and socioeconomic background. With all groups combined, multiple regression results revealed that academic involvement was the only academic socialization variable that was able to significantly predict GPA. For a participant with average scores on all other predictor variables, a one-point increase in academic involvement predicted a .206 standard deviation decrease in GPA (see Table 11).

Table 9: Hypothesis 1b – Frequency of Primary Socializer Selection by Type of Academic Socialization

All Socialization Types	All Groups		NCAA		Club		Intramural		No Sport	
	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**8.87 (6.54)**	**37**	*6.79 (6.06)*	*28*	**9.38 (6.54)**	**39**	**10.26 (6.35)**	**42**	**9.22 (6.81)**	**39**
Professor	2.40 (3.00)	10	1.21 (1.75)	5	2.87 (3.55)	12	2.78 (2.93)	11	2.87 (3.30)	12
Coach	0.58 (1.68)	2	1.55 (2.67)	6	0.26 (0.80)	1	0.13 (0.40)	1	0.30 (1.22)	1
Peer	3.60 (4.28)	15	2.05 (3.68)	9	4.09 (4.41)	17	4.39 (3.96)	18	4.05 (4.74)	17
Ac. Mentor/Counselor	2.68 (5.35)	11	**8.41 (7.28)**	**35**	0.33 (0.86)	1	0.65 (1.51)	3	0.61 (2.30)	3
No One	*6.10 (5.39)*	*25*	4.05 (4.02)	17	*7.42 (5.98)*	*31*	*6.39 (5.25)*	*26*	*6.85 (5.71)*	*29*

Educational Encouragement	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**4.16 (3.73)**	**36**	*3.16 (3.31)*	*27*	**4.49 (3.76)**	**38**	**4.76 (3.79)**	**40**	**4.32 (3.92)**	**38**
Professor	1.74 (2.18)	15	0.98 (1.45)	9	2.04 (2.47)	17	1.98 (2.15)	17	2.08 (2.41)	18
Coach	0.26 (0.82)	2	0.70 (1.29)	6	0.13 (0.46)	1	0.06 (0.24)	1	0.12 (0.58)	1
Peer	*2.27 (2.88)*	*20*	1.23 (2.19)	11	*2.45 (2.87)*	*21*	*2.93 (3.06)*	*25*	*2.55 (3.11)*	*22*
Ac. Mentor/Counselor	1.33 (3.01)	11	**4.29 (4.39)**	**37**	0.19 (0.56)	2	0.27 (0.83)	2	0.22 (1.25)	2
No One	1.87 (2.85)	16	1.21 (2.11)	11	2.39 (3.35)	21	1.84 (2.70)	16	2.14 (3.11)	19

Value of Education	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**2.04 (1.53)**	**42**	**2.05 (1.60)**	**43**	*1.92 (1.50)*	*40*	**2.11 (1.57)**	**43**	**2.08 (1.47)**	**43**
Professor	0.15 (0.48)	3	0.04 (0.20)	1	0.13 (0.37)	3	0.22 (0.68)	5	0.22 (0.52)	5
Coach	0.07 (0.30)	1	0.12 (0.40)	3	0.05 (0.26)	1	0.03 (0.18)	1	0.07 (0.32)	1
Peer	0.45 (0.81)	9	0.33 (0.78)	7	0.55 (0.96)	11	0.53 (0.71)	11	0.41 (0.77)	9
Ac. Mentor/Counselor	0.09 (0.44)	2	0.22 (0.71)	5	0.04 (0.31)	1	0.05 (0.22)	1	0.04 (0.24)	1
No One	*2.03 (1.63)*	*42*	*2.04 (1.63)*	*43*	**2.12 (1.63)**	**44**	*2.00 (1.68)*	*41*	*1.97 (1.58)*	*41*

Academic Involvement	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**2.67 (2.44)**	**35**	*1.58 (2.17)*	*21*	**2.97 (2.35)**	**38**	**3.39 (2.45)**	**44**	**2.83 (2.40)**	**37**
Professor	0.50 (1.09)	7	0.20 (0.79)	3	0.69 (1.22)	9	0.58 (1.13)	7	0.57 (1.15)	7
Coach	0.25 (0.92)	3	0.72 (1.53)	9	0.09 (0.44)	1	0.03 (0.22)	0.4	0.12 (0.57)	2
Peer	0.88 (1.52)	11	0.49 (1.51)	6	1.09 (1.53)	14	0.92 (1.34)	12	1.09 (1.65)	14
Ac. Mentor/Counselor	1.25 (2.39)	16	**3.90 (3.12)**	**51**	0.10 (0.36)	1	0.33 (0.81)	4	0.35 (1.05)	5
No One	*2.20 (2.31)*	*28*	0.80 (1.46)	10	*2.91 (2.29)*	*37*	*2.55 (2.44)*	*33*	*2.75 (2.31)*	*36*

Note. Most frequent socializers are in **bold** and second most frequent socializers are *italicized* within each group.

Table 10: Hypothesis 1b – Means, Standard Deviations, and Analyses of Variance for Sources of Academic Socialization

Variable	All Groups M (SD)	NCAA M (SD)	Club M (SD)	Intramural M (SD)	No Sport M (SD)	df	F	p	η_p^2
Parent/Family	8.87 (6.54)	6.79 (6.06)	9.38 (6.54)	10.26 (6.35)	9.22 (6.81)	(3, 444)	6.46	<.001***	.042
Professor	2.40 (3.00)	1.21 (1.75)	2.87 (3.55)	2.78 (2.93)	2.87 (3.30)	(3, 444)	9.16	<.001***	.058
Coach	0.58 (1.68)	1.55 (2.67)	0.26 (0.80)	0.13 (0.40)	0.30 (1.22)	(3, 444)	21.21	<.001***	.125
Peer	3.60 (4.28)	2.05 (3.68)	4.09 (4.41)	4.39 (3.96)	4.05 (4.74)	(3, 444)	7.84	<.001***	.050
Ac. Mentor/Counselor	2.68 (5.35)	8.41 (7.28)	0.33 (0.86)	0.65 (1.51)	0.61 (2.30)	(3, 444)	111.75	<.001***	.430
No One	6.10 (5.39)	4.05 (4.02)	7.42 (5.98)	6.39 (5.25)	6.85 (5.71)	(3, 444)	9.25	<.001***	.059

Note. ***p < .001
All Variables- Min: 0; Max: 25

Table 11: Hypothesis 2a – Regression Analysis Summary for Academic Socialization
Variables Predicting GPA

Variable	B	95% CI	β	t	p
Academic Expectations	.005	[-.055, .065]	.008	.169	.87
Academic Involvement	-.015	[-.023, -.007]	-.206	-3.581	**< .001***
Educational Encouragement	.003	[-.003, .008]	.057	.975	.33
Value of Education	.011	[-.004, .026]	.075	1.422	.16

Note. Adjusted R^2 = .069 (N= 373, $p < .001$); CI= confidence interval for B;
Controlling for Gender and SES; ***$p < .001$.

Next, a similar multiple regression was conducted for each participation level group, in order to test the hypothesis (see Table 12). For the NCAA, Club, and Intramural groups, none of academic socialization measures tested were found to be significant predictors of GPA. After controlling for SES background and gender, only academic involvement ($p = .04$) was found to be a significant predictor for GPA in the No Sport group. For a participant in the No Sport group with average scores on all other predictors, every one-point increase in academic involvement was associated with a .237 standard deviation decrease in grade point average.

Based on the results, Hypothesis 2a was partially supported in the total sample and for one of the individual groups. Academic involvement did have a significant negative impact on GPA, when the groups were combined and within No Sport group. However, academic involvement did not have a positive impact on the NCAA group as predicted. Additionally, none of the other measures of academic socialization were predicted grade point average in any of the participation level groups.

Table 12: Hypothesis 2a – Split-Group Regression Analysis Summary for
Academic Socialization Variables Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .149; N= 90; p = .003)**:**					
Academic Expectations	.014	[-.114, .142]	.021	.214	.83
Academic Involvement	-.005	[-.026, .016]	-.053	-.493	.62
Educational Encouragement	.011	[-.002, .024]	.202	1.721	.09
Value of Education	.015	[-.019, .048]	.098	.867	.39
Club (Adj. R^2 = .041; N= 86; p = .155)**:**					
Academic Expectations	-.091	[-.210, .029]	-.163	-1.515	.13
Academic Involvement	-.018	[-.039, .003]	-.233	-1.690	.10
Educational Encouragement	.002	[-0.10, .014]	.045	.328	.74
Value of Education	-.001	[-.034, .032]	-.005	-.050	.96
Intramural (Adj. R^2= .011; N= 106; p = .313)**:**					
Academic Expectations	.043	[-.079, .165]	.069	.679	.49
Academic Involvement	-.014	[-.032, .005]	-.169	-1.428	.16
Educational Encouragement	.006	[-.007, .019]	.111	.909	.37
Value of Education	.015	[-.014, .044]	.109	1.044	.30
No Sport (Adj. R^2=.068; N=91; p = .063)**:**					
Academic Expectations	.092	[-.031, .214]	.154	1.488	.14
Academic Involvement	-.019	[-.037, -.001]	-.237	-2.098	**.04***
Educational Encouragement	-.003	[-.013, .007]	-.059	-.534	.59
Value of Education	-.006	[-.036, .024]	-.042	-.400	.69

Note. Controlling for Gender and SES; CI= confidence interval for B.
*p < .05.

Hypothesis 2b. It was anticipated that all forms of academic socialization would

have an inverse relationship with professional sport expectations in the non-NCAA

groups. It was also hypothesized that all forms of academic socialization would have a

negative effect on the professional sport expectations of the NCAA group, except for

academic involvement, which is expected to have a positive influence. A multiple

regression was conducted using academic expectations, value of an education, academic

involvement, and educational encouragement as independent variables, professional sport

expectations as the dependent variable, and controlling for gender and socioeconomic

background. With all groups combined, a multiple regression analysis indicated that

academic involvement positively predicted and value of education negatively predicted

professional sport expectations (see Table 13). For a participant with average scores on

all other predictors, every one-point increase in academic involvement predicted a .429

standard deviation increase and every point improvement in value of education predicted

a .110 standard deviation decrease in professional sport expectations.

Table 13: Hypothesis 2b – Regression Analysis Summary for Academic Socialization
Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
Academic Expectations	-.061	[-.257, .134]	-.028	-.618	.54
Academic Involvement	.112	[.086, .139]	.429	8.273	**< .001***
Educational Encouragement	-.011	[-.030, .007]	-.063	-1.189	.24
Value of Education	-.058	[-.107, -.009]	-.110	-2.332	**.02***

Note. Adjusted R^2 = .225 (N= 388, $p < .001$); CI= confidence interval for B;
Controlling for Gender and SES; *$p < .05$; ***$p < .001$.

Participants were then divided by participation level and separate multiple

regression analyses were conducted for each group (see Table 14). For the NCAA and

Club groups, none of the measures of academic socialization were found to significantly

predict professional sport expectations. Value of education predicted lower professional

sport expectations for the Intramural ($p = .01$) and No Sport ($p = .002$) groups, even after

controlling for gender and socioeconomic background. For a student with average scores

on all other predictors, a one-point increase in value of education predicted a .243 and

.325 standard deviation decrease in professional sport expectations for the Intramural and

No Sport groups, respectively.

Table 14: Hypothesis 2b – Split-Group Regression Analysis Summary for Academic
Socialization Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .153; N= 100; p = .001)**:**					
Academic Expectations	.033	[-.406, .471]	.014	.149	.88
Academic Involvement	.006	[-.068, .079]	.015	.149	.88
Educational Encouragement	.008	[-.036, .052]	.039	.358	.72
Value of Education	-.047	[-.163, .068]	-.088	-.813	.42
Club (Adj. R^2 = .062; N= 89; p = .079)**:**					
Academic Expectations	.075	[-.213, .363]	.054	.515	.61
Academic Involvement	.041	[-.009, .091]	.221	1.614	.11
Educational Encouragement	.004	[-.024, .033]	.042	.311	.76
Value of Education	-.011	[-.090, .068]	-.029	-.270	.79
Intramural (Adj. R^2= .168; N= 106; p < .001)**:**					
Academic Expectations	-.070	[-.242, .103]	-.072	-.798	.43
Academic Involvement	.005	[-.021, .032]	.044	.406	.69
Educational Encouragement	.010	[-.009, .029]	.115	1.031	.31
Value of Education	-.052	[-.093, -.011]	-.243	-2.529	**.01***
No Sport (Adj. R^2= .071; N= 93; p = .054)**:**					
Academic Expectations	.087	[-.103, .278]	.093	.912	.36
Academic Involvement	-.013	[-.041, .015]	-.104	-.934	.35
Educational Encouragement	-.004	[-.019, .012]	-.052	-.475	.64
Value of Education	-.073	[-.119, -.027]	-.325	-3.134	**.002****

Note. Controlling for Gender and SES; CI= confidence interval for B.
*p < .05; **p < .01.

The above analyses indicate that Hypothesis 2b was partially supported. When the groups were consolidated, academic involvement had a positive impact and value of education had a negative impact on pro sport expectations. After controlling for SES background and gender, educational encouragement, academic involvement, and academic expectations did not have a significant effect on any of the individual groups. After splitting the groups, value of education did have a negative impact on professional sport expectations, but only for the Intramural and No Sport groups.

Hypothesis 3a. It was anticipated that regardless of the source, receiving more academic socialization messages from others would predict higher grade point averages for participants in each group. A multiple regression analysis was conducted using the number of messages received from parents/family, professors, coaches, peers, and academic counselors/mentors as predictors, grade point average as the dependent variable, and controlling for socioeconomic background and class standing (i.e., First-year, Sophomore, Junior, Senior). Results of this analysis indicate that reporting a coach ($p = .003$) or academic counselor/mentor ($p = .02$) as having the most influence on academic messages negatively predicted GPA (see Table 15). A student with average scores on all other predictors would be predicted to have a .144 or .138 standard deviation decrease in GPA, respectively, for each time a coach or academic counselor/mentor was selected as the most influential.

Table 15: Hypothesis 3a – Regression Analysis Summary for Sources of Academic Socialization Variables Predicting GPA

Variable	B	95% CI	β	t	p
Parent/Family	-.004	[-.013, .005]	-.047	-.791	.43
Professor	.000	[-.017, .017]	.002	.030	.98
Coach	-.043	[-.072, -.015]	-.144	-2.971	.003**
Peer	-.009	[-.022, .004]	-.074	-1.315	.19
Academic Mentor/Counselor	-.014	[-.025, -.002]	-.138	-2.292	.02*

Note. Adjusted R^2 = .050 (N= 427, $p < .001$); CI= confidence interval for B; Controlling for SES and Class Standing; *$p < .05$; **$p < .01$.

To test Hypothesis 3a, participants were divided by participation level and the multiple regression analysis above was conducted for each group (see Table 16 for multiple regression results). Within the NCAA group, receiving messages from professors ($p = .027$) and peers ($p = .04$) positively predicted grade point average, even after controlling for SES background and class standing. For the Club group, the number of times each source was selected did not predict grade point average. For the Intramural group, more frequently reporting peers ($p = .05$) and academic counselors/mentors ($p = .01$) as the most influential academic socializer negatively predicted grade point average. Students in the intramural group with average scores on each of the other predictors would be expected to have a .219 and .238 standard deviation decrease in GPA for every selection of peer or academic mentor/counselor as the primary socializer. Finally, reporting academic counselors/ mentors ($p = .02$) as a primary academic socializer negatively predicted grade point average in the No Sport group. For a participant in the No Sport group with average scores on all other predictors, each selection of academic mentor/counselor predicted a .239 standard deviation reduction in GPA.

Results indicate that Hypothesis 3a was not supported. When the four groups were consolidated, reporting coaches or academic mentors/counselors as influential sources of academic socialization predicted lower GPAs, even after controlling for SES and class standing. Once the groups were separated, the GPAs of the NCAA group were positively impacted by messages from professors and peers. Additionally, receiving more academic messages from peers and mentors/counselors had a negative impact for the Intramural group and mentors/counselors had a negative impact for the No Sport group.

Table 16: Hypothesis 3a – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (R^2 = .085; N= 108; p = .024)**:**					
Parent/Family	.008	[-.013, .028]	.099	.738	.46
Professor	.058	[.007, .110]	.219	2.240	**.03***
Coach	-.018	[-.054, .018]	-.104	-.986	.33
Peer	.030	[.002, .059]	.244	2.092	**.04***
Academic Mentor/Counselor	.010	[-.010, .030]	.156	.994	.32
Club (Adj. R^2= .022; N=100; p = .250)**:**					
Parent/Family	.000	[-.020, .019]	-.003	-.021	.98
Professor	.000	[-.033, .034]	.002	.014	.99
Coach	-.055	[-.195, .085]	-.082	-.777	.44
Peer	-.010	[-.041, .021]	-.076	-.653	.52
Academic Mentor/Counselor	-.081	[-.215, .054]	-.124	-1.192	.24
Intramural (Adj. R^2= .090; N= 118; p = .014)**:**					
Parent/Family	-.007	[-.024, .009]	-.095	-.877	.38
Professor	.006	[-.026, .038]	.036	.384	.70
Coach	-.199	[-.422, .025]	-.160	-1.763	.08
Peer	-.028	[-.055, .000]	-.219	-2.016	**.05***
Academic Mentor/Counselor	-.079	[-.138, -.020]	-.238	-2.635	**.01***
No Sport (Adj. R^2= .113; N= 101; p = .010)**:**					
Parent/Family	-.007	[-.024, .011]	-.087	-.754	.45
Professor	-.022	[-.054, .010]	-.142	-1.387	.17
Coach	-.082	[-.164, .001]	-.196	-1.968	.05
Peer	-.009	[-.032, .015]	-.081	-.741	.46
Academic Mentor/Counselor	-.053	[-.096, -.010]	-.239	-2.433	**.02***

Note. Controlling for SES and Class Standing; CI= confidence interval for B.
*p < .05.

Hypothesis 3b. It was hypothesized that receiving more academic messages from coaches and academic counselors/mentors would predict higher professional sport expectations in each participation level group. It was also anticipated that the other socialization sources would have negative or no impact on pro sport expectations. A multiple regression analysis was conducted using the number of messages received from each socializing source as independent predictors and professional sport expectations as the dependent variable, while controlling for socioeconomic background and class standing. Multiple regression analysis revealed that receiving more messages from coaches ($p < .001$) and academic mentors/counselors ($p < .001$) positively predicted grade point average (see Table 17).

Table 17: Hypothesis 3b – Regression Analysis Summary for Sources of Academic Socialization Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
Parent/Family	.004	[-.022, .030]	.013	.283	.78
Professor	-.047	[-.096, .001]	-.076	-1.906	.06
Coach	.349	[.266, .433]	.313	8.222	**< .001***
Peer	-.015	[-.054, .023]	-.036	-.798	.43
Academic Mentor/Counselor	.142	[.109, .175]	.409	8.463	**< .001***

Note. Adjusted R^2 = .384 (N= 445, $p < .001$); CI= confidence interval for B; Controlling for SES and Class Standing; ***$p < .001$.

In order to test Hypothesis 3b, participants were divided by participation level and the multiple regression analysis above was conducted for each group (see Table 18 for multiple regression results). After controlling for SES background and class standing, professional sport expectations could not be predicted by the number of messages received by each academic socializer for the NCAA, Club, or Intramural groups. For the

No Sport group, receiving more messages from parents/family or coaches significantly predicted professional sport expectations. Every selection of parents/family predicted a .223 standard deviation reduction, while choosing a coach predicted a .411 standard deviation increase in professional sport expectations for a student in the No Sport group with average scores on all other predictors.

Based on these results, Hypothesis 3b was partially supported. When the regression analysis was conducted using the entire sample, reporting coaches or mentors/counselors as the most influential source of academic messages predicted higher professional sport expectations. Contrary to the hypothesis, reporting coaches or mentors/counselors as the most influential source of academic messages did not predict professional sport expectations once the NCAA group was separated from the other groups. Additionally, the pro sport expectations of the No Sport group were positively affected by receiving academic messages from coaches and negatively affected by receiving them from family.

Table 18: Hypothesis 3b – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
NCAA (R^2 = .102; N= 121; p = .007)**:**					
Parent/Family	-.013	[-.082, .056]	-.045	-.367	.71
Professor	-.076	[-.255, .102]	-.078	-.844	.40
Coach	.031	[-.093, .155]	.048	.497	.62
Peer	-.007	[-.106, .092]	-.015	-.136	.89
Academic Mentor/Counselor	-.014	[-.081, .054]	-.057	-.396	.69
Club (Adj. R^2= .010; N= 103; p = .345)**:**					
Parent/Family	.032	[-.014, .078]	.163	1.395	.17
Professor	.006	[-.074, .086]	.016	.143	.89
Coach	.252	[-.164, .669]	.127	1.202	.23
Peer	.039	[-.028, .106]	.133	1.162	.25
Academic Mentor/Counselor	.051	[-.252, .354]	.034	.336	.74
Intramural (Adj. R^2= .158; N= 118; p < .001)**:**					
Parent/Family	-.010	[-.034, .014]	-.086	-.825	.41
Professor	.030	[-.016, .076]	.116	1.286	.20
Coach	.259	[-.059, .578]	.141	1.612	.11
Peer	-.032	[-.071, .006]	-.173	-1.656	.10
Academic Mentor/Counselor	.065	[-.020, .150]	.133	1.523	.13
No Sport (Adj. R^2= .173; N= 103; p = .001)**:**					
Parent/Family	-.032	[-.063, -.001]	-.223	-2.036	**.05***
Professor	-.049	[-.106, .007]	-.168	-1.733	.09
Coach	.326	[.177, .476]	.411	4.335	**< .001***
Peer	-.021	[-.063, .021]	-.102	-.983	.33
Academic Mentor/Counselor	-.020	[-.098, .058]	-.048	-.509	.61

Note. Controlling for SES and Class Standing; CI= confidence interval for B; *p < .05, ***p < .001

Hypothesis 4a. It was anticipated that when compared to the Club and Intramural groups, the NCAA group would have the highest athletic identity and professional sport expectations. The NCAA group was also expected to spend more time on sports during the season/offseason and less time on school during the athletic season. One-way analyses of variance were conducted in order to test for significant between-group differences in athletic identity, the weekly number of hours spent on school (both season/offseason), the weekly number of hours spent on sports (both season/offseason), and professional sport expectations, with participation level (i.e., NCAA, Club, and Intramural) as the independent grouping factor (see Table 19 for group means and ANOVA results).

Results revealed significant group differences in athletic identity, in-season hours spent on sports, offseason hours spent on sports, and professional sport expectations. Post-hoc analyses were conducted to identify significant between-group pairwise comparisons. There were significant differences between all three groups on athletic identity. The NCAA group reported having a higher mean athletic identity than the Club group ($p < .001$) and the Intramural group ($p < .001$). The Club group also reported a higher mean athletic identity than did the IM group ($p = .001$).

Table 19: Hypothesis 4a – Means, Standard Deviations, and Analyses of Variance for Sport-Related Variables

Variable	Athlete Groups M (SD)	NCAA M (SD)	Club M (SD)	Intramural M (SD)	df	F	p	$\eta_p{}^2$
Athletic Identity	34.25 (8.48)	40.32 (5.67)	32.78 (6.82)	29.35 (8.46)	(2, 337)	**74.47**	**<.001*****	**.306**
School Hrs. (Season)	13.91 (8.97)	12.40 (7.90)	15.01 (9.87)	14.49 (9.05)	(2, 342)	2.78	.06	.016
School Hrs. (Offseason)	14.46 (9.54)	14.03 (9.13)	14.58 (9.78)	14.81 (9.80)	(2, 342)	0.21	.81	.001
Sports Hrs. (Season)	12.63 (11.42)	24.36 (10.40)	9.59 (5.15)	3.25 (2.64)	(2, 342)	**289.79**	**<.001*****	**.629**
Sports Hrs. (Offseason)	8.91 (9.33)	18.16 (9.13)	5.97 (4.31)	1.99 (2.74)	(2, 342)	**225.70**	**<.001*****	**.569**
Total PSE	2.66 (1.96)	4.61 (1.72)	1.84 (1.29)	1.37 (0.74)	(2, 341)	**208.85**	**<.001*****	**.551**
PSE (Self)	2.71 (2.09)	4.71 (1.92)	1.91 (1.48)	1.34 (0.68)	(2, 341)	**182.94**	**<.001*****	**.518**
PSE (Coach)	2.72 (2.02)	4.62 (1.73)	1.67 (1.20)	1.42 (0.94)	(2, 342)	**170.41**	**<.001*****	**.499**
PSE (Family)	2.55 (2.01)	4.48 (1.98)	1.99 (1.50)	1.34 (0.74)	(2, 342)	**176.68**	**<.001*****	**.508**

Note. *** $p < .001$
Athletic Identity- Min: 7; Max: 49
All PSE Variables- Min: 1; Max: 7

Given the results of the ANOVAs, Hypothesis 4a was partially supported.

Contrary to the original hypothesis, there were no significant between-group differences in the weekly hours spent on school during the athletic season. But as predicted, there were group differences in athletic identity, professional sport expectations, and the weekly number of hours spent on sports during the season/offseason. As hypothesized, there were not significant group differences in the weekly hours spent on school during the offseason.

Hypothesis 4b. It was hypothesized that athletic identity would not predict grade point average for any of the athlete groups. Professional sport expectations and weekly hours spent on sports during the season/offseason were expected to have a negative impact on GPA for each group. Also, it was anticipated that the weekly hours spent on school during the season/offseason would have a positive effect on GPA. A multiple regression was conducted using athletic identity, professional sport expectations, hours spent on sports during the season, hours spent on sports during the offseason, hours spent on school during the season, and hours spent on school during the offseason as predictors and grade point average as the dependent variable, while controlling for gender, socioeconomic background, and class standing. Analyses revealed that athletic identity was the only significant predictor of GPA (see Table 20). For a student with average scores on all other predictors, every one-point increase in athletic identity predicted a .218 standard deviation decrease in grade point average.

Table 20: Hypothesis 4b – Regression Analysis Summary for Athletic Identity, Weekly Hours Spent on School/Sports During the Season/Offseason, and Professional Sport Expectations Predicting GPA

Variable	B	95% CI	β	t	p
Athletic Identity	-.013	[-.020, -.005]	-.218	-3.321	**.001****
School Hrs. (Season)	-.006	[-.017, .006]	-.106	-1.001	.32
School Hrs. (Offseason)	.006	[-.005, .016]	.110	1.045	.30
Sports Hrs. (Season)	.009	[-.001, .018]	.197	1.825	.07
Sports Hrs. (Offseason)	-.011	[-.023, .001]	-.191	-1.725	.09
Professional Sport Expectations	-.028	[-.068, .013]	-.107	-1.336	.18

Note. Adj. R^2 = .105; N= 320; $p < .001$; Controlling for SES, Gender, and Class Standing; CI= confidence interval for B.
**$p < .01$.

To test the hypothesis, the above multiple regression was conducted for the NCAA, Club, and Intramural groups (see Table 21). For the NCAA group, the weekly number of hours spent on sports during the offseason had a negative impact on GPA, even after controlling for SES, gender, class standing, and the other predictor variables. An NCAA athlete with average scores on all other predictors is predicted to experience a .255 standard deviation decrease in GPA for each additional hour per week spent on sports during the offseason. Additionally, athletic identity and pro sport expectations both negatively predicted grade point average for the Intramural group. A one-point increase in athletic identity and pro sport expectations predicted a .271 and .216 standard deviation decrease and in GPA, respectively, for a student in the Intramural group with average scores on all other predictor variables. None of the variables could be used to predict GPA in the Club group.

Based on the results, Hypothesis 4b was not supported. It was hypothesized that athletic identity would not predict grade point average, but it did so in the consolidated group and the Intramural group. While athletic identity and pro sport expectations did not predict GPA in the other groups, they were negative predictors for the Intramural group. Additionally, within the NCAA group, the number of hours spent on sports during the offseason negatively predicted grade point average. After controlling for SES, gender, and class standing, weekly school hours during the season/offseason, and the number of weekly sport hours during the season did not predict GPA, as was expected.

Table 21: Hypothesis 4b – Split-Group Regression Analysis Summary for Athletic Identity, Weekly Hours Spent on School/Sports During the Season/Offseason, and Professional Sport Expectations Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .202; N= 107; $p < .001$)**:**					
Athletic Identity	-.011	[-.027, .005]	-.133	-1.394	.17
School Hrs. (Season)	.014	[-.010, .037]	.228	1.171	.24
School Hrs. (Offseason)	-.005	[-.024, .014]	-.101	-.536	.59
Sports Hrs. (Season)	.006	[-.004, .016]	.129	1.122	.27
Sports Hrs. (Offseason)	-.013	[-.026, .000]	-.255	-2.054	**.04***
Professional Sport Expectations	-.034	[-.092, .024]	-.122	-1.167	.25
Club (Adj. R^2= .000; N= 96; $p = .48$)**:**					
Athletic Identity	-.014	[-.032, .004]	-.179	-1.564	.12
School Hrs. (Season)	-.004	[-.022, .014]	-.084	-.476	.64
School Hrs. (Offseason)	.010	[-.008, .028]	.184	1.060	.29
Sports Hrs. (Season)	.009	[-.022, .039]	.086	.579	.56
Sports Hrs. (Offseason)	-.005	[-.040, .031]	-.038	-.262	.79
Professional Sport Expectations	.005	[-.084, .093]	.012	.109	.914
Intramural (Adj. R^2= .162; N= 117; $p = .001$)**:**					
Athletic Identity	-.016	[-.027, -.005]	-.271	-2.935	**.004****
School Hrs. (Season)	-.009	[-.034, .015]	-.170	-.760	.45
School Hrs. (Offseason)	.000	[-.023, .022]	-.007	-.029	.98
Sports Hrs. (Season)	.015	[-.036, .065]	.077	.565	.57
Sports Hrs. (Offseason)	-.011	[-.060, .037]	-.063	-.464	.64
Professional Sport Expectations	-.160	[-.308, -.012]	-.216	-2.139	**.04***

Note. Controlling for SES, Gender, and Class Standing; CI= confidence interval for B.
*$p < .05$, **$p < .01$.

Hypothesis 5. It was hypothesized that having lower professional sport expectations would increase the number of hours spent on school during the athletic season, which would positively impact NCAA athletes' GPAs. It was also anticipated

that having higher professional sport expectations would increase the number of hours

spent on sports during the offseason, which would negatively impact NCAA athletes'

GPAs. A single-step multiple mediator model (Hayes, 2009) was used in order to test this

hypothesis. This analysis was conducted using a statistical macro (INDIRECT) in SPSS

v22 that was designed to estimate the paths of a multiple mediator model and create a

bootstrapped 95% confidence interval for the indirect effects of an independent variable

on a dependent variable through multiple mediators as shown in *Figure 4* (Preacher &

Hayes, 2008). This method was used because it allowed me to account for the effects of

both mediating variables simultaneously, as opposed to conducting two separate analyses.

For my model, the independent variable was professional sport expectations, the

mediators were the weekly hours spent on school during the season and the weekly hours

spent on sports during the offseason, and the dependent variable was grade point average.

Since athletic identity and professional sport expectations had a moderate positive

correlation within this sample of NCAA athletes ($r = .33$), I decided to control for athletic

identity in order to account for the potential effects of athletic identity on GPA. As stated

in the previous chapter, the number of bootstrapped samples used for this model was

5,000, as suggested (Preacher & Hayes, 2008).

Results from the mediation model indicated the presence of a full mediator, as the

coefficient for professional sport expectations as a predictor of GPA went from being

statistically significant [$b = -.077$, $t(103) = -2.799$, $p = .006$] to no longer being

significant [$b = -.047$, $t(103) = -1.711$, $p = .09$] after including the two mediators and the

control variable. The total indirect effects — which included the effects of both mediators

— was statistically significant as indicated by the bootstrapped bias corrected 95%

confidence interval estimate [-.055, -.012]. Of the two mediators tested, only the weekly

hours spent on sports during the offseason was shown to significantly mediate the

relationship between pro sport expectations and grade point average (see Table 22 for

tests of indirect effects). The path from PSE to weekly hours spent on sports during the

offseason was significant ($p = .01$), as was the path from weekly hours spent on sports

during the offseason to GPA ($p = .004$). The effect of PSE on GPA through weekly hours

spent on school was not significant, nor was the path from pro sport expectations to

weekly hours spent on school during the season (see *Figure 4* for all path estimates).

Table 22: Hypothesis 5 – Mediation of the Effect of Pro Sport Expectations on GPA Through
Weekly Hours Spent on School (Season) and Weekly Hours Spent of Sport (Offseason),
Controlling for Athletic Identity

		Product of Coefficients		Bootstrapping Bias Corrected 95% Confidence Interval	
	Point Estimate	SE	Z	Lower	Upper
Indirect Effects					
School Hours (Season)	-.0109	.0073	-1.51	-.0285	.0004
Sport Hours (Offseason)	-.0194	.0091	**-2.15***	-.0417	-.0058
TOTAL	-.0303	.0109	**-2.78****	-.0548	-.0121

Note. Adj. $R^2 = .16$; $F(4, 103) = 6.16$; $p < .001$; 5,000 bootstrap samples
*$p < .05$; **$p < .01$.

Figure 4: Hypothesis 5 – Mediation Model of the Effect of Pro Sport Expectations on GPA
Through Weekly Hours Spent on School (Season) and Weekly Hours Spent of Sport (Offseason),
Controlling for Athletic Identity

Given the results of the multiple mediator model, Hypothesis 5 was partially

supported. As anticipated, PSE did have an effect on the number of hours spent on sports

during the offseason. However, PSE did not have an impact on the number of hours spent

on school during the season. Also, both mediators did impact GPA directly, which was

expected. Although the weekly hours spent on school during the season did not

significantly contribute to the total indirect effects beyond the effect for which weekly

sport hours in the offseason was responsible, the total indirect effects still supported the

existence of a full mediation model.

Hypothesis 6a. For NCAA athletes, it was hypothesized that there would not be

racial group differences in types of academic socialization reported or the weekly time

spent on school. Analyses of variance were conducted in order to test for significant

racial group differences in types of academic socialization and the number of weekly

hours spent on school (see Table 23). Since the Black/African American and

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White/European American groups were the only two racial groups large enough to

comparisons, the other groups were eliminated from the analyses.

Results revealed significant group differences in academic involvement [$F(1, 102)$

= 4.06, $p < .05$], as Black NCAA athletes reported more involvement from academic

socializers than White NCAA athletes. Academic involvement was the only type of

academic socialization in which Black and White athletes differed significantly. Analyses

of variance also revealed that there were not significant differences between Black and

White NCAA athletes in the amount of weekly hours spent on school and sports. *Since*

Black and White NCAA athletes reported spending their time similarly and reported

differences on only one type of academic socialization, Hypothesis 6a was partially

supported.

Table 23: Hypothesis 6a/b – Means, Standard Deviations, and Analyses of Variance for Black and White NCAA Athletes

Variable	All NCAA Athletes M (SD)	Black/African American M (SD)	White/European American M (SD)	df	F	p	η_p^2
GPA	3.07 (0.48)	2.94 (0.44)	3.16 (0.50)	(1, 101)	5.58	.02*	.052
Academic Aspirations	2.68 (0.81)	2.73 (0.77)	2.63 (0.83)	(1, 112)	.45	.50	.004
Academic Expectations	2.66 (0.76)	2.63 (0.74)	2.63 (0.77)	(1, 112)	.002	.97	.000
Academic Involvement	32.21 (5.09)	33.33 (4.97)	31.33 (5.07)	(1, 102)	4.06	.05*	.038
Ed. Encouragement	55.07 (9.44)	53.70 (11.43)	55.81 (7.54)	(1, 102)	1.28	.26	.012
Value of Education	18.23 (3.30)	18.51 (3.52)	17.98 (3.20)	(1, 110)	.69	.41	.006
Athletic Identity	40.32 (5.67)	40.35 (5.81)	40.33 (5.70)	(1, 111)	.000	.99	.000
School Hrs. (Season)	12.40 (7.90)	10.96 (6.47)	13.36 (7.40)	(1, 112)	3.32	.07	.029
School Hrs. (Offseason)	14.03 (9.13)	13.17 (8.71)	14.21 (7.42)	(1, 112)	.47	.49	.004
Sports Hrs. (Season)	24.36 (10.40)	25.22 (12.84)	23.44 (7.62)	(1, 112)	.85	.36	.007
Sports Hrs. (Offseason)	18.16 (9.13)	19.69 (11.70)	16.87 (5.91)	(1, 112)	2.77	.10	.024
Total PSE	4.61 (1.72)	5.21 (1.53)	4.05 (1.73)	(1, 112)	13.93	<.001***	.111
PSE (Self)	4.71 (1.92)	5.40 (1.67)	4.11 (1.89)	(1, 112)	14.63	<.001***	.116
PSE (Coach)	4.62 (1.73)	5.02 (1.59)	4.24 (1.79)	(1, 112)	5.90	.02*	.050
PSE (Family)	4.48 (1.98)	5.21 (1.71)	3.82 (1.94)	(1, 112)	16.18	<.001***	.126

Note. *$p < .05$, ***$p < .001$
PSE = Professional Sport Expectations

Hypothesis 6b. It was also expected that athletic identity and pro sport expectations would be highest among Black NCAA athletes and that White NCAA athletes would have a higher mean grade point average. To test the hypothesis, analyses of variance were conducted, which revealed no group differences in athletic identity, but significant group differences in both GPA [$F(1, 101) = 5.58$, $p = .02$] and professional sport expectations [$F(1, 112) = 13.93$, $p < .001$]. White NCAA athletes had a mean GPA that was significantly higher than that of Black NCAA athletes (see Table 23). Additionally, Black NCAA athletes perceived having significantly greater professional sport expectations than their White colleagues. *Even though there were no racial group differences in athletic identity, there were significant differences in pro sport expectations and GPA, meaning that Hypothesis 6b was partially supported.*

Hypothesis 6c. It was anticipated that there would not be gender differences in the types of academic socialization reported or the amount of time spent on school per week within the NCAA group. It was also predicted that GPA would be higher for women. To test the hypothesis, analyses of variance were conducted (see Table 24). Results indicated that, on average, women reported a higher GPA [$F(1, 107) = 16.52$, $p < .001$], a higher value of education [$F(1, 118) = 26.20$, $p < .001$] and indicated that they received more educational encouragement than men [$F(1, 107) = 9.95$, $p = .002$]. NCAA women also indicated that they spend more weekly hours on school during the season than NCAA men. *Since there were unanticipated gender differences in two of the types of academic socialization and in the weekly time NCAA athletes spent on school during the season, Hypothesis 6c was partially supported.*

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Table 24: Hypothesis 6c/d – Means, Standard Deviations, and Analyses of Variance for NCAA Men and Women

Variable	All NCAA Athletes M (SD)	NCAA Men M (SD)	NCAA Women M (SD)	df	F	p	$\eta_p{}^2$
GPA	3.07 (0.48)	2.94 (0.44)	3.31 (0.46)	(1, 107)	**16.52**	**< .001*****	**.134**
Academic Aspirations	2.68 (0.81)	2.65 (0.66)	2.73 (1.01)	(1, 120)	.31	.58	.003
Academic Expectations	2.66 (0.76)	2.64 (0.67)	2.69 (0.90)	(1, 120)	.14	.71	.001
Academic Involvement	32.21 (5.09)	31.91 (4.95)	32.69 (5.34)	(1, 110)	.61	.44	.006
Ed. Encouragement	55.07 (9.44)	53.03 (9.81)	58.74 (7.53)	(1, 107)	**9.95**	**.002****	**.085**
Value of Education	18.23 (3.30)	17.16 (3.18)	20.07 (2.66)	(1, 118)	**26.20**	**< .001*****	**.182**
Athletic Identity	40.32 (5.67)	40.18 (6.00)	40.56 (5.09)	(1, 118)	.12	.73	.001
School Hrs. (Season)	12.40 (7.90)	11.34 (6.47)	14.22 (9.69)	(1, 120)	**3.88**	**.05***	**.031**
School Hrs. (Offseason)	14.03 (9.13)	12.84 (6.86)	16.07 (11.88)	(1, 120)	3.61	.06	.029
Sports Hrs. (Season)	24.36 (10.40)	26.12 (12.17)	21.33 (5.19)	(1, 120)	**6.29**	**.01***	**.050**
Sports Hrs. (Offseason)	18.16 (9.13)	20.01 (10.31)	14.98 (5.41)	(1, 120)	**9.22**	**.003****	**.071**
Total PSE	4.61 (1.72)	4.99 (1.61)	3.96 (1.73)	(1, 120)	**11.01**	**.001****	**.084**
PSE (Self)	4.71 (1.92)	5.08 (1.82)	4.09 (1.95)	(1, 120)	**7.95**	**.006****	**.062**
PSE (Coach)	4.62 (1.73)	4.99 (1.66)	4.00 (1.69)	(1, 120)	**9.91**	**.002****	**.076**
PSE (Family)	4.48 (1.98)	4.90 (1.84)	3.78 (2.02)	(1, 120)	**9.76**	**.002****	**.075**

Note. *p < .05, **p < .01, ***p < .001
PSE = Professional Sport Expectations

Hypothesis 6d. Within the NCAA group, it was also hypothesized that athletic identity, time spent on sports, and pro sport expectations would be higher for men. Analyses of variance were conducted in order to test the hypothesis (see Table 24). Results indicated that there was not a significant difference between NCAA men and women on athletic identity. There were, however, significant gender group differences in the average weekly hours spent on sports during the season [$F(1, 120) = 6.29, p = .01$] and in the offseason [$F(1, 120) = 9.22, p = .003$]. NCAA men reported spending more time on sports than NCAA women during both of those time periods. Men also reported experiencing greater expectations to play their sport professionally than did women [$F(1, 120) = 11.01, p = .001$]. *Though there were not significant gender differences in athletic identity, the rest of Hypothesis 6d was supported*.

Hypothesis 7a. It was hypothesized that receiving more academic messages from sources that are affiliated with athletics would predict a lower grade point average for Black NCAA athletes, but not White NCAA athletes. To test this hypothesis, a multiple regression analysis was conducted for each group using the number of messages received from parents/family, professors, coaches, peers, and academic counselors/mentors as predictors, grade point average as the dependent variable, and controlling for socioeconomic background and class standing.

Results revealed that peers were the only academic socializer whose messages significantly predicted grade point average, and this was only true for the Black NCAA athletes (see Table 25). For a Black NCAA athlete with average scores on all other

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predictor variables, each academic message that was received from peers predicted a .425

standard deviation increase in GPA. Contrary to the hypothesis, receiving academic

messages from coaches and academic mentors did not predict GPA for either group.

Since receiving messages from socializers who are affiliated with the athletic department

did not predict lower grade point averages, Hypothesis 7a was not supported.

Table 25: Hypothesis 7a – Split-Group Regression Analysis Summary for Sources of
Academic Socialization Predicting GPA for Black and White NCAA Athletes

Variable	B	95% CI	β	t	p
Black NCAA (Adj. R^2 = .177; N= 45; *p* = .04)**:**					
Parent/Family	-.001	[-.025, .023]	-.022	-.119	.91
Professor	.055	[-.016, .127]	.231	1.570	.13
Coach	-.027	[-.073, .019]	-.180	-1.203	.24
Peer	.050	[.011, .088]	.425	2.582	**.01***
Academic Mentor/Counselor	.017	[-.006, .041]	.314	1.504	.14
White NCAA (Adj. R^2= .007; N= 57; *p* = .403)**:**					
Parent/Family	.004	[-.033, .041]	.051	.226	.82
Professor	.043	[-.044, .129]	.149	.992	.33
Coach	-.029	[-.100, .042]	-.133	-.813	.42
Peer	-.002	[-.052, .047]	-.020	-.100	.92
Academic Mentor/Counselor	-.008	[-.047, .031]	-.114	-.417	.68

Note. Controlling for SES and Class Standing; CI= confidence interval for B.
*p < .05.

Hypothesis 7b. It was hypothesized that receiving more academic messages from

sources that are affiliated with athletics will predict higher professional sport expectations

for Black NCAA athletes, but not White NCAA athletes. In order to test this hypothesis,

a multiple regression analysis was conducted for each group using the number of

messages received from parents/family, professors, coaches, peers, and academic

counselors/mentors as predictors, pro sport expectations as the dependent variable, and

controlling for socioeconomic background and class standing (see Table 26). *Analyses*

indicated that professional sport expectations could not be predicted by the number of

academic messages received from any of the socializing sources in either group;

therefore Hypothesis 7b was not supported.

Table 26: Hypothesis 7b – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting Pro Sport Expectations for Black and White NCAA Athletes

Variable	B	95% CI	β	t	p
Black NCAA (Adj. R^2 = .000; N= 51; *p* = .93)**:**					
Parent/Family	.034	[-.059, .126]	.145	.736	.47
Professor	-.045	[-.328, .238]	-.051	-.319	.75
Coach	.060	[-.117, .237]	.110	.682	.50
Peer	-.019	[-.168, .129]	-.045	-.263	.79
Academic Mentor/Counselor	.007	[-.082, .095]	.036	.158	.88
White NCAA (Adj. R^2= .055; N= 62; *p* = .18)**:**					
Parent/Family	-.042	[-.162, .079]	-.143	-.689	.49
Professor	-.055	[-.329, .220]	-.056	-.399	.69
Coach	.012	[-.223, .247]	.015	.100	.92
Peer	.059	[-.108, .226]	.133	.708	.48
Academic Mentor/Counselor	-.011	[-.140, .118]	-.043	-.169	.87

Note. Controlling for SES and Class Standing; CI= confidence interval for B.

CHAPTER 5

Discussion

Summary of Results

One of the first goals of this dissertation was to explore the idea that NCAA student-athletes are like any other student on campus. The results of this dissertation show that while this assertion may be valid in some ways, in many ways, it is not the case. Many NCAA athletes do not have an experience that is similar to the students who do not participate in sports, nor is their experience like that of athletes who participate at lower levels. NCAA athletes reported receiving differing amounts of academic messages than their peers and from different sources than their peers. All of the other groups were similar on almost all of the academic measures. This indicates that the other groups have a relatively shared academic experience, whereas the academic life of the NCAA athlete is much different than that of the other students.

Across all groups, one type of academic socialization was found to be helpful and one type was found to be harmful to student outcomes. Valuing education did not predict grade point average, but it did negatively predict professional sport expectations. Those who valued education more had less of an expectation to play sports professionally. On the other side, academic involvement had a positive impact on professional sport expectations. Academic involvement also negatively predicted grade point average. For those who participated in sports at any level, athletic identity was also found to negatively predict grade point average.

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Within the group of NCAA athletes, the weekly number of hours spent on sport during the offseason had a negative effect on GPA. Those additional hours of sports were also found to mediate the effect of professional sport expectations on grade point average. Also within the NCAA athletes, there were racial group differences in GPA, academic involvement, and professional sport expectations. There were also gender group differences in GPA, educational encouragement, value of education, weekly hours spent on school during the season, weekly hours spent on sports, and professional sport expectations. For these group differences, Black and male athletes seemed to be the two groups who benefited the least. Members of these two groups appear to have academic experiences that are even more different from the average student on campus.

Types of Socialization

Results indicated that there was a negative correlation between class standing and experiencing academic encouragement/involvement. This may be a sign that students who have been in school longer learned to adjust to their role as a college student, and need less assistance than those who are just beginning (Melendez, 2006). But, when coupled with the fact that there was a moderately strong positive correlation between academic involvement and reporting mentors/counselors as a primary socializer, and that the NCAA group had the youngest average age, it could also be a reflection of a policy that requires first-year students to attend mandatory mentoring or tutoring sessions.

Another finding is that the NCAA athletes were socialized differently than other groups. Not only were the sources of academic socialization different for this group, but there were also group differences in the types of academic socialization NCAA athletes

reported. NCAA athletes reported experiencing more educational encouragement than one of the groups and more academic involvement than all other groups. It is believed that these types of academic socialization are frequently a part of the job of academic support staff members (Comeaux & C. Harrison, 2011). What is interesting about NCAA athletes' reports of having received significantly more academic involvement than the other groups is that this was the only measure of academic socialization that was found to negatively predict grade point average, even after controlling for the effects of SES and gender. This finding provides additional support for the idea that sometimes having others too involved in academic endeavors can be harmful to academic achievement (Suizzo & Soon, 2006; Pomerantz et al., 2007; Tan & Goldberg, 2009). Much of the previous research about this topic had been done on students prior to college, but the findings from this dissertation provide clear evidence for the negative effect of academic involvement on college students, as well.

There were also similarities in the types of academic socialization that NCAA athletes reported when compared to their peers. Whereas many incorrectly believe the stereotype that NCAA athletes do not value their education or that they do not care enough to graduate from college (Bimper, L. Harrison, & Clark, 2013), results from this dissertation say otherwise. Not only did NCAA athletes aspire and expect to attain the same level of education as their peers, they also similarly expressed believing in the value of their education. If education seems valuable to NCAA athletes and they want and expect to earn the same degree as their peers, other factors are impeding their ability to succeed and must be the cause of the differences in academic achievement seen in this

dissertation and attainment gap witnessed elsewhere (Harper, Williams, & Blackman, 2013).

It is also interesting that the only academic socialization measure that had a significant positive correlation with GPA was the valuing of education. This may be connected to findings in the literature on task value (Eccles & Wigfield, 2002), as those who believe that an education matters are likely to apply more effort than those who do not have that belief. Even though the correlation was significant, not even the value of education significantly predicted GPA in a regression model.

This finding brings into question whether academic socialization is as necessary for college students as it is for those in primary and secondary school. Perhaps the establishment of independence that some view as being developmentally appropriate for college students (Chickering, 1967) affects the way in which these students receive and internalize academic messages. It is possible college students receive fewer academic messages from others than they did when they were younger or that these messages no longer have an impact on their academic beliefs and outcomes. It is more plausible that they still receive academic messages from outside sources, but that these messages are more implicit or less hands-on than the messages they received when they were younger. Maybe as college students establish their independence, these academic messages become more like suggestions than commands. In this scenario, the messages that are most likely to stay with them enough to change their behaviors are the ones that they have internalized and incorporated into part of their own identity.

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Socialization Sources

As expected, NCAA athletes did not rely on the same academic socializers as the other groups. Whereas each of the other groups reported receiving their academic messages primarily from their families or "no one", NCAA athletes relied on academic mentors/counselors first and their families second. There was much variability within the NCAA group in the number of academic messages received from academic support staff. As stated above, one factor that likely contributes to this phenomenon is that others are able to determine which athletes will receive services. In this particular athletic department, those in their first year are required to have extensive contact with academic counselors/mentors. After their initial year, academic services become voluntary for some and mandatory for others, depending on such factors as academic performance and importance on the depth chart. These restrictions are typically not placed on NCAA upperclassmen or students who participate at other levels of sport unless they have been placed on academic probation from the university. Which is why in the other groups, the mean number of messages is low, as is the variability in reception of messages from this set of socializing sources.

Academic mentors/counselors provided NCAA athletes with the most academic messages overall, but these messages did not come from all three categories of academic socialization. Academic support staff provided NCAA athletes with academic support in the form of academic involvement and educational encouragement, but were not mentioned as primary influences for messages about the value of an education. Some might argue that this is further evidence that academic support staff is mainly focused on

keeping the NCAA athletes eligible to participate in sports (Comeaux & C. Harrison, 2011). An alternative idea is that many of these athletes arrive at college having already internalized the value of earning a degree, so they do not see academic support staff as a major influence on these beliefs. Regardless of the interpretation, it is clear that academic support staff is a high frequency socializing source for NCAA athletes.

Another noticeable difference between the NCAA athletes and the other students was that NCAA athletes' families did not play as large of a role in transmitting academic messages as the families of students in the other groups. The other groups counted on their families similarly. This could be a sign that family members are less supportive in the academic lives of their NCAA athletes because athletics are a bigger priority (Bentley-Edwards & Robbins, 2014). However it is likely that academic support staff expands its role in the academic lives of NCAA athletes during a time when the typical student begins receiving less academic messages from others. Thus, when non-NCAA students are learning to compensate for reduced academic socialization from family members and other socializers, they are developing more self-reliance. For NCAA athletes, whose grades may impact people outside of their families, this opportunity to grow and develop independently is denied. Adding to that, providing too much academic support in a place that is not normative might be harmful to NCAA athletes as it communicates the message that student-athletes' skills are inadequate and reinforces the idea that NCAA athletes are intellectually different from other students.

Another possibility is that families trust academic support staff to assist their athletes, so they begin to take more of a supplementary role. The practice of entrusting

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school officials to support students instead of personally advocating has been seen with minority and low-income populations in K-12 educational settings (Lareau & Shumar, 1996; Shumow & Miller, 2001) and is a possible explanation for some of the NCAA athletes in this sample, as many of them fit in at least one of those two categories. It should also be considered that due to current recruiting practices, many athletes have relocated from places that are farther away from their parental support than might be the case for the average student— often with promises to parents that their son or daughter's academic progress will be thoroughly monitored and supported.

Two sources of academic socialization that were shown to be academically beneficial, but only for the NCAA athletes, were professors and peers. Previous studies have found these two socializers to be contributors to the academic success of NCAA athletes (Comeaux & C. Harrison, 2007; C. Harrison, Comeaux, & Plecha, 2006). This dissertation provides additional support for this claim, while also accounting for the potential impact of SES, class standing, and other academic socializers. Neither of these two socializers provided athletes with a bulk of their messages, but when professors and peers did provide academic messages, they had a positive impact on NCAA athletes' grades. Many NCAA athletes have grown accustomed to receiving negative messages from professors and peers who view them through a stereotyped lens (Stone, Perry, & Darley, 1997; Sailes, 1993; Simons et al., 2007), but this finding provides evidence that these two sources can also empower NCAA athletes to be successful students.

It is intriguing that even though academic support staff provide the most academic messages, they do not seem to be providing the most effective messages for the academic

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success of NCAA athletes. The fact that professors and peers did not provide as many messages, but were still able to have a positive effect on grade point average provides evidence to the claim that the quality of academic messages can be more important than the quantity (Pomerantz, Moorman, & Litwack, 2007). The findings also imply that many athletes do not view coaches and academic support staff as reliable sources of academic socialization. Maybe when a professor or peer sends a positive academic message, it is seen as being more authentic, since these socializers gain very little when athletes do well academically. Since athletes are constantly surrounded by teammates in multiple contexts (Comeaux & C. Harrison, 2011), it highly likely that some these peers are teammates. But, since this dissertation did not give participants the option to designate whether their socializing peers were teammates or non-athlete peers, this may need to be examined in the future.

In the case of coaches and academic support staff, NCAA athletes may believe that they are being encouraged and supported academically so that others can eventually benefit from their athletic contributions. If NCAA athletes begin to believe that the only time someone from athletics will intervene is if they are close to missing the eligibility cutoff, this can seriously compromise their faith in themselves and sources from athletics. This dissertation did not explore athletes' beliefs about which socializers are trustworthy and which might be taking advantage of them, but does supply evidence that this may need to be explored more deeply in the future.

Weekly Time Spent on School/Sports

The weekly hours spent on school during the season/offseason was not associated with grade point average for NCAA, club, and intramural participants. In other words, these students were able to achieve academic success while spending varying numbers of weekly hours on school. Alternatively, weekly hours spent on sports during the season/offseason was negatively correlated with grade point average. The effect sizes were small, but spending more time on sports may serve as a distraction from academic focus. Also, weekly hours spent on sports during the athletic season and during the offseason were both negatively associated with class standing. This means that participants who were in school longer spent less time on sports during the season, as well as during the offseason. It may be that older students are able to develop a healthier balance in how they spend their time, and may be looking to their futures outside of sports.

Since NCAA athletes have mandatory practices and play on a more prominent stage than the other athletes on campus, it was no surprise that they reported spending, on average, almost 15 more weekly in-season hours on sports than the next highest group (club sports). During the offseason, they still spent 13 more hours per week on sports than did those on the next highest participation level. Though NCAA athletes in this dissertation spent a lot more time on sports than their peers, it should be noted that they reported spending less time on sports than athletes in other studies. In one study, 56% of NCAA athletes reported spending at least 30 hours per week on sports (Brown et al., 2000). Even with a similar distribution by sport, that number was only 26% for this

dissertation. Like that study, nearly half of this sample of NCAA athletes reported

spending between 20 and 29 hours per week on sports.

Spending time on sports is not necessarily an academic detriment, as some studies

have found that exercise helps mental functioning (Prakash, Voss, Erickson, & Kramer,

2015). But, since the findings from this dissertation indicate that spending more offseason

time on sports negatively predicted the grade point averages of NCAA athletes only, one

must wonder about the line at which physical activity is no longer beneficial for cognitive

performance. Spending more time on sports during the offseason could be a signal of

disinterest in school. Following the PVEST model (Spencer, 1995), it may also be a

response to pressures and expectations that others have communicated about improving

athletic performance before next season or being ready to play at the professional level.

Given their busy athletic schedules and results from a previous study that

compared them to a group of non-athlete peers (Yopyk, & Prentice, 2005), it was

expected that NCAA athletes would devote less time to school each week. Findings from

this dissertation did not match these assertions. It is easy to assume that the reason NCAA

athletes do not do as well as their peers in school is that the athletes need to spend more

time on school. In actuality, many athletes make time for their studies on their own and

for those who do not, there is an academic support structure in place to ensure that they

devote at least some of their time to school. If they spend the same weekly hours on

school as their peers, one has to question whether these hours are at full strength or

whether dedicating so much time to sports dilutes NCAA athletes' academic capabilities

by making them physically and mentally exhausted. One study found that NCAA athletes

earned lower grades during their athletic seasons (Scott et al., 2008). Although this dissertation included reports of in- and off-season study hours, it did not include reports of in- and off-season grades. This dissertation suggests that this dip in grades is likely not the result of spending less time on school, but it is possible that investing more time in athletics may compromise the mental and physical energy necessary for academic success.

Grade Point Average

One of the main goals of this dissertation was to assess whether receiving academic messages from different sources similarly impacts students' grade point averages. It could be assumed that all academic socialization is beneficial regardless of the source this dissertation provides evidence to the contrary. After controlling for SES and class standing, it was discovered that receiving academic messages from coaches or academic mentors/counselors had a negative impact on grade point average. It is possible that coaches and academic support staff mainly transmit the types of academic messages that can be harmful, as college students may find some messages to be intrusive (e.g., academic involvement) (Suizzo & Soon, 2006; Tan & Goldberg, 2009). For example, if a student athlete notices coaches and support staff provide assistance only when they are performing too poorly to participate in sports or was academically unprepared upon enrollment, as some studies suggest (Davis, 2013; C. Harrison et al., 2006), it may diminish these sources as trusted informants of academic socialization messages.

It is also possible that when students receive academic messages from these two sources, they are receiving a number of other messages about priorities and their own

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academic abilities. As one study found, academic and other messages can be harmful when they do not communicate a trust that these students can operate autonomously (Feltz et al., 2013). Participating in behaviors that appear more similar to surveillance than support teaches athletes to do well in school so that they do not get in trouble. In this system, if they are punished for doing poorly in school, they will learn more ways that school can hurt them than they learn ways in which it can help.

As coaches and academic support staff put academic pressure on their student-athletes, their interactions with the athletes may be lacking a key component that was found in parent-adolescent relationships — warmth. According to Suizzo and colleagues (2012), parents providing warm messages along with messages that push adolescents to do well academically lessened the negative impact of intrusive academic messages. For these parents, showing their adolescents acceptance and an interest in adolescents' hobbies might have allowed the adolescents to view their parents and the academic messages more positively. If we apply this to student-athletes, it is possible that coaches and academic support staff would be able to better connect with their athletes if they showed more of an interest in who they are outside of football and treated their academic and other interactions more warmly. Making an effort to relate to athletes about something other than sports or maintaining eligibility might be a good start. After that, allowing athletes to have more influence on their own academic decisions would make school seem like a collaborative goal in which all parties are working together to make sure athletes are successful on all fronts.

Another interesting finding was that all variables related to athletics were negatively correlated with GPA. Professional sport expectations, athletic identity, weekly hours spent on sports during the season/offseason, and receiving academic messages from coaches/mentors/counselors each were negatively linked with GPA. While these findings are not surprising, they do not fully align with the findings of Woodruff and Schallert (2008), which described a more heterogeneous picture of how college athletes balance their student and athlete roles. The fact that none of the correlations are greater than $r = -.23$ may be a sign that at least some heterogeneity still exists, but one must wonder whether the current state of college athletics in this country is making this dual role harder to balance. These negative associations are not so much a sign that those who play sports are not focused on their studies, as it is a sign that playing sports at this level may make it hard to focus on anything else (Bimper, L. Harrison, & Clark, 2013).

Professional Sport Expectations

There were a number of findings associated with professional sport expectations. For starters, the NCAA group had the highest average professional sport expectations of any group. These expectations are likely a major factor that makes NCAA athletes' collective experience different than that of other students. This is especially true given that having higher professional sport expectations may impact behavior (Beamon & Bell, 2002). Also, there was a moderate negative correlation between PSE and class standing. This may be connected to the realization that many of the best prospects are able to leave college before their eligibility has been exhausted. Another explanation is that as athletes spend more time in college, they are able to explore more possible future roles and

playing a sport professionally is no longer the only priority (Killeya, 2001). It is also possible that after playing at the college level, they realize they are not as talented as they had once believed.

Another interesting finding was that, academic involvement positively predicted and value of education negatively predicted professional sport expectations, even after controlling for two other measures of academic socialization, SES, and gender. For academic involvement, the positive impact might be caused by a lack of self-efficacy (Tan & Goldberg, 2009). Those who receive more academic help might assume that it is not possible for them to be successful in school on their own merit. This might make playing professional sports seem like a more viable option than graduating. It is also possible that when others believe that athletes expect to go pro or they expect that of athletes, they begin to get more involved in making sure athletes' academics do not prevent them from participating (Comeaux & C. Harrison, 2011). Due to a lack of prior research on professional sport expectations, it is difficult to identify which of these is a more plausible explanation.

Results from this dissertation provide support for the idea that transmitting messages about the value of education may reduce professional sport expectations. This effect could only be seen in the two groups who are least likely to believe that they will play a sport professionally. For NCAA athletes, it is not surprising that valuing education did not predict professional sport expectations, because many of them have high PSE but their valuing of education may be variable (Woodruff & Schallert, 2008). Those who value both sports and education should be more likely to be able to see multiple options

for success. For NCAA student-athletes, believing that education matters may be the key to establishing a more balanced role, but likely will not change their expectations to do well in sports.

Finally, indicating both coaches and mentors/counselors as the most influential socializers positively predicted professional sport expectations, even after controlling for SES, class standing, and messages from other sources. One possible explanation for this is that those who have the highest PSE will attract the academic attention of coaches and academic support staff. Another plausible explanation is that receiving messages from sources affiliated with athletics can make the athlete role feel more salient (Killeya, 2001), which may contribute to athletes focusing mostly on their academic future. Another possibility to consider is that coaches and academic support staff may be providing additional academic help to those who are good enough to play professionally, in order to ensure that they are eligible to participate (Comeaux & C. Harrison, 2011).

Athletic Identity

There was a strong correlation between athletic identity and participation level. Not surprisingly, those who participate at the highest level (i.e., NCAA) had the highest athletic identity and those who participate at the lowest level (i.e., Intramural) had the lowest. This matched the findings from a study by Lamont-Mills and Christensen (2006) that found elite-level athletes identified with the athlete role more strongly than those who participate at a lower level. These researchers also concluded that one does not have to participate at an elite level in order to believe that participating in sports is psychologically important. This was evident in this sample, as many athletes in the club

and intramural groups had athletic identities similar to those we might find in those who participate in sports at higher levels.

In another study with findings that may be relevant to the observed differences in athletic identity, the authors found that non-athletes and former athletes had lower levels of athletic identity than did current athletes (Houle, Brewer, & Kluck, 2010). It is likely that many of the intramural athletes once had higher athletic identities (due to high school or youth sports participation) that have become less salient, as they are no longer able to participate at the highest level. It is difficult to determine how much this would impact club athletes, as some are participating at the highest level that is offered, while others are participating in their sports at a level lower than the NCAA athletes. An example of this would be that gymnastics is not offered as an NCAA sport, so those who participate at the club level are participating at the highest level offered. Volleyball is offered at the NCAA level, so those who play club volleyball are not participating at the highest level. For those who are not participating at the highest possible level, it is likely more challenging to convince themselves and others that the role of athlete is acceptable in their personal identity. Although former athlete status was not measured here, it might be a useful variable going forward.

Also of interest was the finding that athletic identity can have an impact on GPA. When the entire sample was analyzed, athletic identity was found to negatively predict GPA, even after controlling for the impact of multiple other factors including hours spent on school, SES, and gender. What was surprising was that after the groups were divided, this effect remained significant, but only within the intramural athletes. These athletes'

GPAs were also negatively affected if they maintained professional sport expectations. As stated above, many of those who participate in intramurals likely participated in sports while they were in high school. In these cases, transitioning into being unable to play in college might require an identity adjustment that some are not ready to make (Cosh, Crabb, & LeCouteur, 2013). For these athletes in particular, holding on to the athlete role beyond when it is useful was detrimental to their ability to succeed in another realm (i.e., academics). Bringing NCAA athletes back into focus, *one must wonder if the plight of the unadjusted intramural athlete is a window into what may be in store for the many NCAA athletes who will have to make a similar transition upon the termination of their college careers*.

Weekly Time Spent on School/Sports as a Mediator

Results showed that pro sport expectations did not predict the number of hours an NCAA athlete spends on school during the season. It is likely that because athletes have very regimented schedules during their respective seasons, many dedicate a number of hours to school each week for which they have little flexibility. In this case, future sport expectations do not play a significant role in determining the number of school hours, because current sport obligations contribute to that decision. Instead of higher pro sport expectations causing athletes to spend less time on school during the season, it did not have a significant effect on their decision-making. This eliminated the weekly amount of time NCAA athletes spent on school during the season as a potential mediator.

NCAA athletes' professional sport expectations did increase the weekly number of hours they dedicated to sports during the offseason. In turn, the weekly number of

hours that athletes spent on sports during the offseason decreased their GPAs. The significant indirect effect of the path from PSE to GPA through the weekly number of hours spent on sports during the offseason sheds light on an action that has a negative impact on academic outcomes. For those NCAA athletes with high pro sport expectations, being forced to or choosing to maintain a busy athletic schedule during the offseason has a negative impact on their grades. This finding coincides with Spencer's (1995) PVEST model, as the expectation that an athlete will play professionally indirectly impacts his or her grades, as he or she is forced to make choices about whether to maintain a heavy athletic workload or focus on something other than sports once the season ends.

The results of the mediator model bring to mind a relevant study by Scott and colleagues (2008), which found that NCAA athletes suffered a significant decrease in academic performance during their season. If this is the case, there is cause for concern since athletes who train as if their season never ends are being exposed to a sort of academic double jeopardy. In other words, their grades suffer from their busy athletic season and then their grades suffer again from their busy athletic offseason. Another area to consider is that some athletes and their advisors may schedule easier classes during their athletic seasons, so that their academic schedule is less demanding during the time that their athletic role demands so much of their time. In these instances, athletes would schedule the most challenging courses during their athletic offseason. This strategy would be helpful for ensuring that athletes are able to take more rigorous courses when they are able to devote more time to these classes. But, if an athlete maintains weekly sport hour

totals close to his or her in-season training hours, scheduling harder classes during the offseason would likely have an even stronger negative impact on his or her academic performance.

A study by Davis (2013) found that professional sport aspirations were not linked to lower grades. Perhaps this was because the athletes were still in high school and were more limited in the amount of time they were able to dedicate to sports during the offseason. At the college level, athletes likely have access to better training facilities and have less seat time for their classes. The freedom of being in college allows NCAA athletes the ability to dictate more of their own schedule and to spend significantly more time developing their athletic talents. Judging from the mediation test results, it is clear that professional sport expectations indirectly have a negative impact on grade point average. This happens because as athletes look to prepare themselves to play professionally one day, they begin to spend more hours focusing on sports during the time that school should be the primary focus, the off-season. This increase in sport hours negatively affects their grades.

Black vs. White NCAA Athletes

Black and White NCAA athletes were similar in almost all comparisons that were conducted. Their academic aspirations and expectations were almost identical. They reported similar levels of educational encouragement and valued their educations similarly. There were also no significant differences in the weekly number of hours spent on school and sports during the season/offseason. While many mischaracterize Black athletes as academically disengaged, these findings provide evidence to the contrary. This

dissertation bolsters the claim that many Black athletes—like Black students in general—care about and are just as academically invested as their White counterparts (Cokley, 2015; Bimper, L. Harrison, & Clark, 2013).

Given the literature on the difference between Black and White athletes' athletic identity (L. Harrison, Lee, & Belcher, 1999; Gaston-Gayles & Schuh, 2005), it was surprising to find that the group means on this measure were the same. These findings may be due to the fact that these studies were conducted using younger students who had not yet reached college. Perhaps many of the White athletes who have lower athletic identities get weeded out prior to college. It is also possible that within the last 10-20 years, findings from previous studies have led to changes in the way people socialize Black and White athletes toward sports. A more recent study also found that there were not significant group differences in identification with the athletic role (C. Harrison et al., 2014).

There were only a few group differences between Black and White NCAA athletes, those differences were found in GPA, the reception of academic involvement messages, and professional sport expectations. Discrepancies between the GPAs of Black and White NCAA athletes are not surprising, given previous research on Black athletes entering college less prepared than their White counterparts (C. Harrison et al., 2006). Some might claim that Black GPAs were likely affected by the in-season demands of their typically high profile sports (Scott et al., 2008), but both groups in this study spent the same amount of time on sports/school during the season *and* offseason. Rather than only pointing to the deficiencies within Black athletes, this gap might be the result of

Black athletes suffering the consequences of operating in a world where they are constantly stereotyped as poor students due to their race and sports participation (Cokley, 2015; Stone, C. Harrison, & Mottley, 2012).

Differences in professional sport expectations were not surprising, given the expansive body of literature on this topic (L. Harrison et al., 2011, Beamon, 2008, Beamon & Bell, 2002; Dawkins, Braddock, & Celaya, 2008). Only one study found that Whites were more likely to aspire to play professional sports (Jodl et al., 2001), and that data was collected from adolescents in 1995. Findings from this dissertation correspond with the many studies that found that Black athletes have higher professional sport expectations (Beamon & Bell, 2002; Dawkins, Braddock, & Celaya, 2008; Zeiser, 2011). What is obvious from the way that pro sport expectations were measured in this dissertation is that Black athletes also sense higher expectations from others (i.e., coaches and family). It seems that they know what people expect of them and by now the lines that separate others' expectations from their own have gotten blurry. One has to wonder the mental, physical, and academic toll that Black athletes endure as they attempt to live up to these mostly unattainable expectations.

One difference that had not been anticipated was the discrepancy between Black and White NCAA athletes' reports of academic involvement. Black athletes reported significantly more involvement than did their White counterparts, despite the fact that they have access to the same academic support staff. Conceivably this extra involvement is as a result of Black athletes' lower level of academic preparation prior to college (Davis, 2013; C. Harrison et al., 2006) or their current lower academic performance. This

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increased involvement may also be a sign that socializers do not trust Black athletes to handle academics tasks on their own, so this involvement is a way to monitor their completion of academic tasks. The fact that these differences were seen along racial lines may be a sign that those who socialize athletes possess stereotyped beliefs that Black athletes are disengaged from school (Cokley, 2002) or that they are poorer students who need a bit more help (Hall, 2001; Engstrom & Sedlack, 1991). It is not easy to pinpoint the exact cause of this disparity, but with all of the research that has been done on stereotypes of Black students (Bentley-Edwards & Robbins, 2014; Cokley et al., 2011) and Black athletes (Stone et al., 2012; Comeaux & C. Harrison, 2007; Yopyk & Prentice, 2005), it would be hard to rule out racialized beliefs as a differentiating factor.

NCAA Men vs. Women

NCAA men reported receiving less educational encouragement than did NCAA women. In other words, when women had academic difficulties and needed emotional support, others provided them with more encouraging messages than they did NCAA men. It is not clear why this difference occurred, but it is an indication that some people view and treat male athletes who struggle academically differently from female athletes who are having a difficult time. This difference may be the result of societal gender norms that dictate the acceptability of providing emotional support to women, but less so to men. Socializers might also believe the misconception that male athletes are less intellectually capable, which creates less incentive to support them, as encouragement may not change their outcomes. NCAA men also reported a lower value of education than NCAA women. This may be related to that variable's moderate positive correlation

with encouragement ($r = .32$ for the NCAA athletes in this sample), as men who are receiving less encouragement toward education might be less inclined to value it. Further, having disparate opportunities to participate in professional sports may have an effect on the difference in the valuing of education. Of course, the gap in professional sport opportunities might also partially explain why women had and perceived lower professional sport expectations. This finding matched those of previous research (Marx et al., 2008; Jodl et al., 2001).

NCAA men also reported spending fewer hours per week on school during the season and more weekly hours on sports during the season and offseason than NCAA women. Weekly hours spent on school during the offseason was trending toward significance, as women reported spending an average of approximately three more hours per week on school during the offseason than men. This difference is practically significant, and it is likely that conducting a similar analysis in the future with a sample that is more gender balanced would help to get a more accurate assessment of its statistical significance, as well. Although student identity was not measured in this dissertation, spending more time on school during the season may provide evidence in support of other studies that have found that women tend to have a more balanced student-athlete identity (Marx et al., 2008; Simons et al., 2007). With this balance, women have been found to be less likely to identify with the athlete role in a way that impairs the student role (Melendez, 2006). What is interesting is that NCAA men and women in this study had the same group mean on athletic identity. Which means that

compared to men, women might have been spending extra time on school and less time on sports in an attempt to better balance possible identity conflicts (Marx et al., 2008).

Limitations

As with any study, this dissertation has a number of limitations. First, this dissertation examined academic socialization from the perspective of the students, but did not assess any data from the perspective of socializing agents. For this reason, there was no way to know the intent of socializing messages. Also, since I did not control for academic ability, it is difficult to infer whether students received academic messages due to misconceptions or because they actually needed assistance. Additionally, there was no way to determine how each student decided which socializing agent was the primary socializer for each message. It is possible that multiple agents transmit messages at similar frequencies, but students were only able to choose one primary source without being instructed on how to choose in ambiguous cases.

Even though the overall sample was adequate in size, the sample of NCAA athletes may not be large enough to make generalizations about all student-athletes. Another threat to the external validity of this dissertation is that all data was collected from students who took classes from one department at one university, which may limit the ability to make generalizations about students who take classes in other departments or at other schools.

Another limitation may be the fact that the sample consisted of 274 men and 173 women, which was likely the result of a number of factors. One such factor is that since the overwhelming majority of intramural participants at this school are men, they made

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up over 75% of the Intramural group in this sample. Another contributing factor to the gender imbalance is that more than 60% of NCAA athletes in the sample were men, which may be due to the academic clustering of male athletes, as described in the literature review. Also, close to 85% of the Black athletes in the sample participate in football, basketball, or track & field, which may limit the ability to make inferences about the other Black NCAA athletes on campus.

Finally, self-reported grade point average was used to measure academic success, which may be concerning for two reasons. First, allowing students to self-report GPA may have given them the opportunity to inflate the average to something more desirable. Secondly, GPA was used even though there are more long-term measures of academic outcomes, such as college graduation or the ability to obtain a job sometime after graduation.

Despite the limitations of this dissertation, I believe that the findings have strong theoretical and practical merit. Since the goal of this dissertation was to determine the impact of these socializing messages and not the intent, it seems fitting to have the students self-report their perceptions. Only the students can know whose messages have been the most influential in socializing them academically. It is very possible that many of these socializers mean well, but are not aware of the influence of their implicit academic messages. Also, I did not control for academic ability for two reasons. First, I question whether knowing that it is possible to be admitted to college with lower than normal standardized tests scores disincentivizes athletes to score up to their potential. Additionally, I did not want to unknowingly induce stereotype threat in NCAA athletes

(Stone, C. Harrison, & Mottley, 2012) by having them identify their athlete status during pre-screening procedures, and then administering a measure of academic ability.

In the big picture, the number of NCAA athlete participants seems small, but it must be considered that NCAA athletes only make up a small percentage of the students on a large campus. Annually, they make up around one percent of the total undergraduate student body on this particular campus. The fact that they make up a quarter of the sample in this dissertation is the result of oversampling, which was done to ensure a larger and more diverse sample of NCAA athletes. Additionally, even though all of the participants attend the same university, this university has similar academic and athletic programming to many other schools with elite sports and research programs around the country. It is a state-funded, Tier I research institution that has a large student population and a Division I FBS athletic program that is affiliated with a major conference. Many states, including this one, have multiple institutions that could be described in this manner.

The overrepresentation of Black NCAA athletes in football, basketball, and track in this sample is not a concern, because those are the sports in which Black college athletes normally compete. This seemingly skewed representation is actually more typical of the distribution of Black athletes in college sports than would be a sample in which these athletes were divided more evenly by sport (NCAA, 2012b). Thus, the concentration of Black athletes in three main sports is not a limitation, as it more closely aligns with the distribution in the population.

Finally, self-reports of grade point average have been found to be slightly inflated

by some lower performing students, but overall these reports tend to correspond with grades submitted by schools (Dornbush et al., 1987). Given the importance of grade point average in the lives of NCAA athletes and other college students as a measure of academic success, it is a logical choice for a measure of academic outcomes. For student-athletes, GPA determines eligibility for athletic competition and possibly the necessity for academic intervention. For all students, GPA may determine academic probation, graduation eligibility, undergraduate college and graduate school acceptance, and internship and immediate career possibilities, among other outcomes. Simply put, grade point average is very significant in determining many current and short-term outcomes for all college students, so it was utilized for this dissertation. Attempting to use a long-term measure of academic success would not have been a more accurate way to measure the current academic impact of current socializers. Again, the strengths of this dissertation far outweigh the limitations, as this dissertation explores the academic impact of academic socialization and professional sport expectations from the perspective of NCAA student-athletes and other college students.

Practical Implications

Being overly involved in athletes' academic lives likely stunts their normative development toward being autonomous college students. One way to help NCAA athletes be more academically successful is to limit the amount of certain types of academic involvement that they are receiving. Especially when this involvement comes from sources who athletes may distrust to have their best academic interests in mind. Coaches and academic support staff should look for ways to build athletes' trust by stressing the

importance of education, acknowledging their academic successes, and participating less in academic surveillance. And since there was evidence of unequal academic socialization and professional sport expectation based on race and gender, those who work with athletes should take special care to emphasize and encourage education to all athletes.

Those affiliated with athletics should also look for ways in which athletes can explore other identities and career paths, especially since so few will always be seen and compensated as athletes for the rest of their lives. One way to do this is by creating a system to monitor and limit the amount of time athletes are spending on sports during the offseason. This may impact their athletic performance, but will greatly benefit the athlete in the long run, as they will not have invested so much time and energy into their athletic skills that will likely fade before they reach the age of 35— regardless of their future in professional sports. With this extra time, athletes can focus on developing a more balanced student-athlete identity and building a more transferable skillset to help them transition into their life after playing sports.

Finally, exposing athletes to more professors and creating a diverse network of peers can help athletes be more successful. Since professors are seen as academic experts, receiving positive academic messages from them might help them feel they belong on campus. Academic support staff members can be facilitators who help to connect athletes with professors and campus organizations that will help athletes develop other interests. One way academic support staff can do this is by coordinating opportunities for athletes to work on undergraduate research teams with professors and non-teammate peers. This

would give the athletes the chance to collaborate with peers, build their resumes, and explore a new identity, while familiarizing themselves with some practical uses for academic knowledge. And for some athletes, this might open up opportunities for research or graduate school. Positive academic messages from peers or teammates can reinforce athletes' value in realms outside of sports. Peers can also be an important point of comparison for career competiveness, as athletes can see how their own career experiences and skills compare to those of their peers.

Research Implications and Future Directions

This dissertation shows that using PVEST (Spencer, 1995) to better understand the ways in which others may contribute to the academic success and underperformance of NCAA student-athletes. Rather than having a direct impact on athletes' grades, socializers indirectly affect the expectations, identities, and outcome of NCAA athletes. This is done by placing professional sport expectations on them, as well as providing them with an excess of academic messages that are different from the types received by their peers. These expectations and this differential treatment create an environment where being able to participate in athletics appears to be the top priority. As a reaction, athletes begin to devote more time to sports, as going pro becomes their own main focus and develops into their emerging identity (see *Figure 1*). To live up to these expectations, they work harder at sports, which makes it more difficult to perform up to their academic potential.

This dissertation found that direct academic socialization might be less important to college students than it is to children and high school students. Since the typical

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college student is learning to be more independent, it is probable that they have internalized much of their academic beliefs prior to attending college. This dissertation was the first study to compare the academic socialization of NCAA athletes to that of their peers, and it is clear that NCAA athletes are being socialized by a different set of agents. Athletes' socializers are heavily involved in their academic lives, but this does not appear to be advantageous to their academic outcomes. This study found that having professional staff that is more academically involved does not necessarily help improve athletes' academic success. This was likely associated with the finding that academic support staff members were primarily monitoring athletes' academic endeavors — which is connected to poorer academic outcomes, and not necessarily teaching them to value or be invested in their own education — which has a positive relationship with academic outcomes. This reminds us of the quality vs. quantity argument in academic socialization.

Going forward, there are a number of items that might be explored in future research. Academic socialization seems to be more difficult to measure in college students, but several studies were able to successfully measure its effect in younger populations. It would be interesting to examine whether these or other group differences are seen in middle or high school student-athletes and their peers. Especially since by the time many athletes enter college, it is likely that they have already benefitted from or been harmed by academic messages. Future research might also investigate whether there are differences by sport in the ways academic socialization and professional sport expectations impact each other and academic outcomes. Differences may exist when those who participate in high profile and/or revenue-generating sports are compared to

those who participate in other sports. Since athletes who participate in revenue-generating sports play on a more visible stage, there is extra incentive to ensure that these athletes are eligible to play in and help win games. And since there were both racial and gender group differences in many of the variables in this study, scholars should inspect the differences caused by intersecting group membership (e.g., a Black, male athlete who participates in a revenue generating sport). Various group memberships may cause socializers to interact with these athletes differently and might lead to different outcomes, thus group differences should be examined.

Also worth examining is academic socialization and professional sport expectations from the perspective of the socializers. Knowing whether socializers intervened due to high or low academic expectations/performance would paint a clearer picture of their intent and about which athlete characteristics serve as a catalyst for their involvement or encouragement. What might also be of interest is whether socializers believe academic or racial stereotypes about student-athletes and whether this impacts the likelihood of providing academic socialization or expecting an athlete to play a sport professionally. A study of stereotypes would be especially intriguing in the case of academic support staff, since they regularly work with athletes. Academic mentors and counselors may have formed strong misconceptions about their clients or may have had their previous stereotypes challenged after working with athletes with a range of academic capabilities. This matters because, as a number of studies have found, educators' expectations and stereotypes have been found to impact students' academic outcomes (C. Harrison et al., 2006; Lee et al., 2011; Simons et al., 2007). The academic

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stereotypes and expectations of academic support staff may have a similar effect. It is also possible that athletes believe these stereotypes about themselves and that this effects their pro sport expectations or athletic identities. Additionally, it would be informative to know what happens in cases where professional sport expectations from coaches or family do not align with those of the athlete, as the athlete must somehow reconcile these conflicting messages.

Since this dissertation only used self-reported GPA as an academic outcome measure, future studies should consider using a variety of academic measures that have been collected from a variety of sources. Instead of solely having athletes self-report, one might collect academic assessment scores directly from school officials. Researchers might also use more measures of specific behaviors, such as homework completion, time studying for tests, or turning in work on time. Other academic measures might be used in future research might include assessments of academic identity and beliefs, such as academic self-concept and academic motivation.

Another topic that future research may need to explore is whether the results found in this dissertation would look the same at similarly situated research institutions with large influential sports programs, as well as other types of schools throughout the country. There are many factors that could lead to NCAA athletes receiving similar or different academic socialization compared to their peers. Perhaps at universities that place less cultural emphasis on or have lower expectations of athletic success, athletes are treated more similarly to their peers. Socializing sources at certain schools may be more likely to have stereotyped views of athletes. Maybe it matters if the school is public or

private or whether or not it offers athletic scholarships. The philosophies of those directing academic support programs for NCAA athletes will likely vary by school, as will his or her approach to providing athletes with academic support. These programs will undoubtedly affect who has access to athletes and the frequency with which they are able to relay academic messages to athletes. Comparing school factors to see which ones lead to athletes' academic success must be done, as this knowledge may be a key to helping student-athletes achieve educational equity.

Conclusion

In an ideal world, those who participate in athletics at the NCAA level miss very little class time, make the same grades as their peers, and graduate with the same frequency as everyone else. In reality, the more pressure there is to perform on the athletic field and on the national stage, the harder it is for that fantasy to come true. As was demonstrated in this dissertation, in many aspects of academic and athletic life, NCAA athletes are nothing like their peers. It was noted earlier that in pretty much every area where NCAA athletes were different from other students, their grades suffered as a result. To be clear, I am not making the claim that participating in sports is bad for a college student. This dissertation shows that it is possible to devote a significant amount of time to sports without noticing any significant differences from peers, but that was only the case for those who play club sports and not those who play at the NCAA level. Playing sports at the most elite level in college can be harmful for many because it leaves very little room for anything but sports.

Many NCAA athletes are controlled and pressured and expected during a time when they are supposed to be experiencing their first real taste of young adulthood, which to most college students means freedom and autonomy. Many athletes are treated as though the real freedom is the right to decide how hard one wants to work to play at the next level, but playing at the next level is not a right, and it is barely a privilege. It is a privilege to play a lottery that is designed for almost 100% of people to fail. Despite this truth, thousands of athletes are guided toward this system and are left behind after investing so much of themselves into developing skills that they will never get paid to use. Not to mention, they are developing these skills at the cost of developing independence and experiences that will help shape the rest of their future outside of sports. I was not able to completely identify what it is, but something about this system is very flawed. For those who still believe that it is not, I invite you to imagine how much differently NCAA athletes' lives would be if they *actually* practiced sports for no more than 20 hours each week. Picture what their lives would be like if everyone around them was fervent about their personal and academic successes off the field. Envision a world where at least 80% of athletes were expected to graduate from college within six years. And then realize that this is the reality of all of the other students on campus.

Appendices

Appendix A: Figures

PVEST for the Student-Athlete

Risk & Protective Contributors

Socialization Sources
Demographics
Athlete Status

Net Stress Engagement

Academic Socialization
Pro Sport Expectations (Coach)
Pro Sport Expectations (Family)

Academic Outcomes

GPA

School Hours
Sport Hours

Athletic Identity
Pro Sport Expectations (Self)

Reactive Coping Mechanisms

Emergent Identity
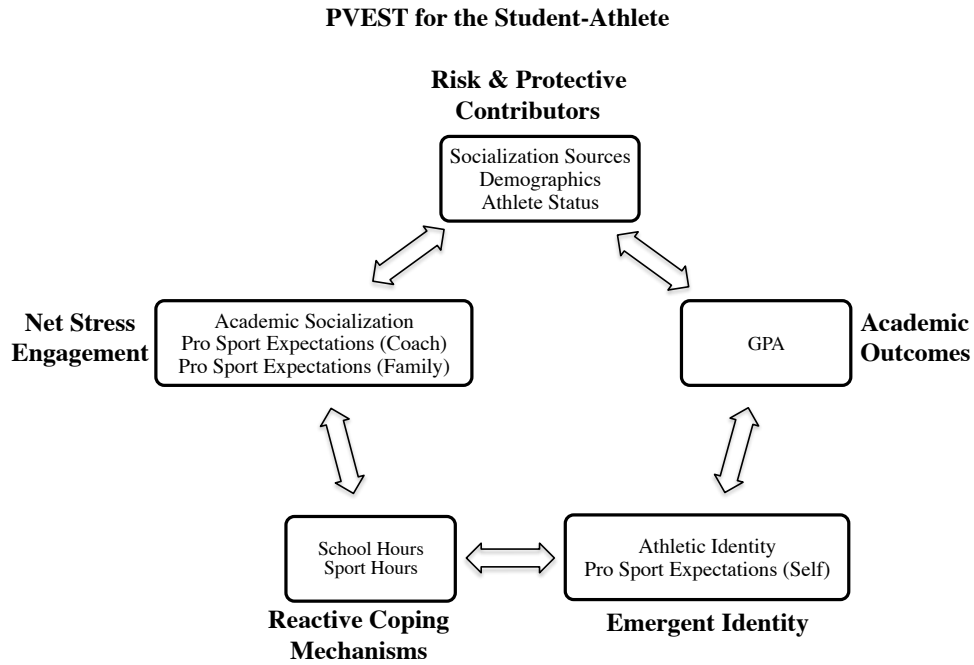
Figure 1. Phenomenological Variant of Ecological Systems Theory for Student-Athletes

Figure 2: Conceptual Model of the Influence of Socialization on Outcomes
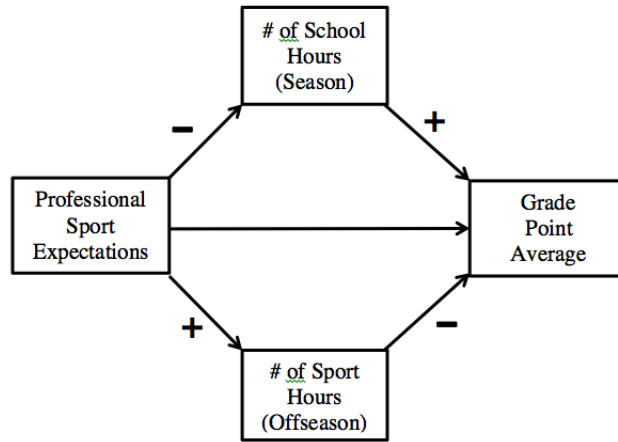
Figure 3. School Hours (Season) and Sport Hours (Offseason) as mediators of relationship between PSE and GPA
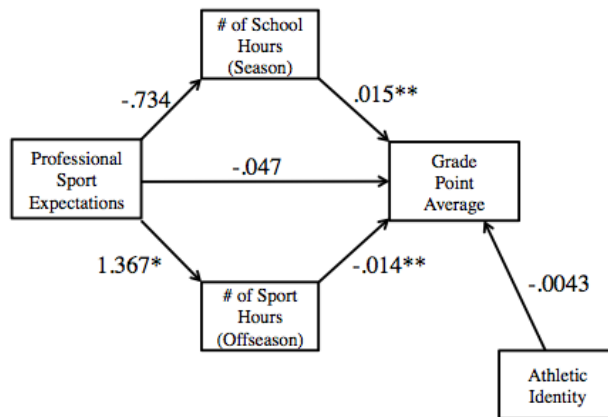
Figure 4: Hypothesis 5 – Mediation Model of the Effect of Pro Sport Expectations on GPA Through Weekly Hours Spent on School (Season) and Weekly Hours Spent of Sport (Offseason), Controlling for Athletic Identity

Appendix B: Survey

Online Informed Consent Form (ADMINISTERED ONLINE)

You are invited to participate in a set of surveys about academic socialization and Athletic Identity. This study is being conducted by Paul A. Robbins and Dr. Keisha L. Bentley-Edwards of the Educational Psychology Department of The University of Texas at Austin, One University Station D5800, Austin, Texas 78712.

The purpose of this study is to examine the relationship between academic socialization and athletic identity. Your participation in the survey will contribute to a better understanding of the influence of others on grades and athletic identity. We estimate that it will take about 30-45 minutes of your time to complete the survey. You are free to contact the investigators at the above mailing address or the email address listed later on this page to discuss the survey.

The potential risk to the participants is no greater than everyday life. Risks to participants are considered minimal. There will be no costs for participati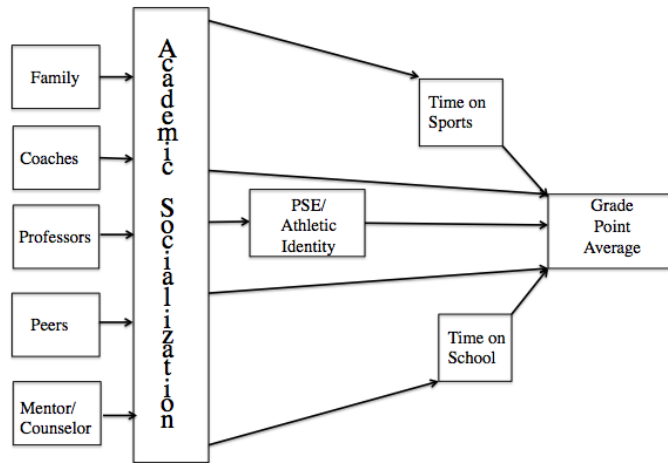ng, nor will you benefit from participating other than fulfilling your EDP Subject Pool requirement. We will not share your responses with anyone. Further, only the researchers named above will have access to the data during data collection. Any information that you submit will be stored on a password protected computer.

EDP Subject Pool Participants: Identification numbers (UTEID) associated with email addresses will be kept during the data collection phase for tracking purposes only. Your UTEID will be separated from your survey responses and will only be used to record your participation in the survey. This information will be deleted from the final dataset. If you choose not to participate in this study, please click "I do not agree" below. You will then be directed to information about an alternative assignment option. If you would like to receive credit but do not want to participate in this study, please talk to your instructor about completing the alternative assignment. The alternative assignment should be equivalent in the time and effort that would be needed to participate in this study.

Your participation in this survey is voluntary. You may decline to answer any question and you have the right to withdraw from participation at any time without penalty. Withdrawal will not affect your relationship with The University of Texas in anyway. If you do not want to participate either simply stop participating or close the browser window. If you wish to withdraw from the study or have any questions, contact the investigator listed above. Participants must be 18 years or older in order to participate in the study.

If you have any questions, please contact the researchers by phone at (512) 471-2755 or by email at paul.robbins@austin.utexas.edu or kbentleyedwards@austin.utexas.edu. You may also request a hard copy of the survey from the contact information above.

This study has been processed by the Office of Research Support at The University of Texas at Austin. If you have questions about your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact - anonymously, if you wish - the Office of

Research Support by phone at (512) 471-8871 or email at orsc@uts.cc.utexas.edu. You may reference this study by using Protocol Number: 2013-09-0050.

If you agree to participate please click on the "I agree" button at the lower right of the screen. If you choose not to participate, please click on the "I do not agree" button to exit.

If you encounter any problems while completing the survey, please send an email to paul.robbins@austin.utexas.edu.

Thank you.

Demographic Form (ADMINISTERED ONLINE)

Please provide the following information about yourself.

1. **Gender:**
   a. Male
   b. Female

2. **How old are you? _____**

3. **Race/Ethnicity:**
   a. Black/African American
   b. White/European American
   c. Hispanic/Latino American
   d. Asian American
   e. Biracial (Specify: _____)
   f. Other (Specify: _____)

4. **Class standing:**
   a. First-year
   b. Sophomore
   c. Junior
   d. Senior

5. **Please write your cumulative grade point average (GPA) ___. ___ ___**

6. **What is your family's socioeconomic status?**
   a. No Income
   b. Low Income
   c. Middle Income
   d. Upper Middle Income
   e. High Income

7. **What job do you think you will have 4 years after you leave UT? _____**

8. **Do you participate in an organized team sport that is affiliated with the University?**
   a. Yes, I participate in an NCAA sport.
   b. Yes, I participate in a UT club sport.
   c. Yes, I participate in an intramural sport.
   d. No.

9. **In which sport(s) do you participate at the NCAA or club level? _____**

Professional Sport Expectations (PSE)
(ADMINISTERED ONLINE)

Directions: Indicate the degree to which you agree/disagree with each of the following statements.	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. I expect to play a sport professionally.	1	2	3	4	5	6	7
2. My coach expects me to play a sport professionally.	1	2	3	4	5	6	7
3. My family expects me to play a sport professionally.	1	2	3	4	5	6	7

Educational Expectations/Aspirations
(ADMINISTERED ONLINE)

1. How far would you like to go in school? **(Select One)**

   ❏Some College   ❏Bachelor's Degree
   ❏Master's Degree   ❏Doctoral/Professional Degree (e.g. MD, JD, PhD)

2. How far will you actually go in school? **(Select One)**

   ❏Some College   ❏Bachelor's Degree
   ❏Master's Degree   ❏Doctoral/Professional Degree (e.g. MD, JD, PhD)

Athletic Identity Measurement Scale (AIMS)
(ADMINISTERED ONLINE)

Directions: Indicate the degree to which you agree/disagree with each of the following statements.	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
1. I consider myself an athlete.	1	2	3	4	5	6	7
2. I have many goals related to sports.	1	2	3	4	5	6	7
3. Most of my friends are athletes.	1	2	3	4	5	6	7
4. Sports are the most important part of my life.	1	2	3	4	5	6	7
5. I spend more time thinking about sports than anything else.	1	2	3	4	5	6	7
6. I feel bad about myself when I do poorly in sports.	1	2	3	4	5	6	7
7. I would be very depressed if I were injured and could not compete in sports.	1	2	3	4	5	6	7

Student Report of Encouragement Scale
(ADMINISTERED ONLINE)

Indicate: (a) the degree to which you agree/disagree with each of the following statements about how others might encourage you about school and (b) the person most who most frequently encourages you to do the activity in each statement.

The people who usually help me in school encourage me…

1.   . . . **when I don't feel like doing my schoolwork.**

Very Untrue	Untrue	Somewhat Untrue	Somewhat True	True	Very True
1	2	3	4	5	6

Who does this most frequently? (**Select One**)

Parents/ Family	Professor	Coaches	Peers	No One	Academic Counselor/Mentor	Other _____

2.   . . . **when I have trouble organizing my schoolwork.**

3.   . . . **to be aware of how I'm doing with my schoolwork.**

4.   . . . **to try new ways to do schoolwork when I'm having a hard time.**

5.   . . . **when I have trouble doing my schoolwork.**

6.   . . . **to look for more information about school subjects.**

7.   . . . **to develop an interest in schoolwork.**

8.   . . . **to believe that I can do well in school.**

9.   . . . **to believe that I can learn new things.**

10.   . . . **to ask the teacher for help when a problem is hard to solve.**

11.   . . . **to follow the teacher's directions.**

12.   . . . **to explain what I think to the teacher.**

Value of an Education for the Future Scale
(ADMINISTERED ONLINE)

Indicate: (a) the degree to which you agree/disagree with each of the following statements about school and (b) the person who has had the most influence on each belief.

1. I have to do well in school if I want to be a success in life.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Where does this belief come from? **(Select One)**

Parents/ Family	Professor	Coaches	Peers	No One	Academic Counselor/Mentor	Other _____

2. Even if I do well in school, I still won't be able to get a good job when I grow up.

3. Schooling is not so important for kids like me.

4. I learn more useful things from friends and relatives than I learn in school.

5. I have so much to do at home that I don't have enough time to do homework.

Academic Involvement Scale
(ADMINISTERED ONLINE)

Indicate: (a) the degree to which you agree/disagree with each of the following statements about others' involvement in your academics and (b) the person most frequently involved in each of these activities.

1. Someone monitors whether I have done my homework.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Who does this most frequently? **(Select One)**

Parents/ Family	Professor	Coaches	Peers	No One	Academic Counselor/Mentor	Other _____

2. Someone supervises whether I do my best in academics.

3. Someone monitors my grades/test scores.

4. Someone supervises whether I make academic progress.

5. Someone supports me when I have academic difficulties.

6. Someone encourages me when I get good grades.

7. Someone talks to me about my academic problems.

8. Someone advises me to do my homework.

Appendix C: Tables

Table 1: Frequency of NCAA Participants by Sport

Sport	All NCAA	Black	White	Male	Female
Baseball	9	0	8	9	--
Basketball	10	7	3	6	4
Cross Country/Track	6	0	6	2	4
Football	41	28	11	41	--
Golf	1	0	1	1	0
Rowing	5	0	3	--	5
Soccer	4	1	3	--	4
Softball	6	2	4	--	6
Swimming & Diving	12	0	12	8	4
Tennis	4	0	3	0	4
Track & Field	18	10	8	10	8
Volleyball	6	4	3	--	6

Table 2: List and Description of Measures

Measure	Description
Professional Sport Expectations	Measures degree to which participants perceive the expectation to play a professional sport by self, coach, and family 3 items Scale: Strongly Disagree (1) to Strongly Agree (7) alpha = .96
Athletic Identity (AIMS)	Measures degree to which participants identify with the athlete role 7 items Scale: Strongly Disagree (1) to Strongly Agree (7) alpha = .85
Academic Expectations/Aspirations	Measures expectation and aspiration of academic attainment (highest academic degree attained) 2 items Scale: Some College (1) to PhD or JD (4) alpha = .78
Value of Education	Measures participants' perceptions of the necessity of formal education for future success 5 items Scale: Strongly Disagree (1) to Strongly Agree (5) alpha = .66
Academic Involvement	Measures the degree to which others are involved in participants' education 8 items Scale: Strongly Disagree (1) to Strongly Agree (5) alpha = .87
Educational Encouragement	Measures the degree to which participants believe others provide encouragement and emotional support for academic difficulties 12 items Scale: Very Untrue (1) to Very True (6) alpha = .91
Primary Source of Socialization	The number of times a participant selects one of seven sources as a primary socializer for messages of academic involvement, educational encouragement, and the value of an education 25 items Response Items: Parents/Family, Professor, Coaches, Peers, Academic Counselor/Mentor, No One, Other

Table 3: Participant Demographics

Gender	Frequency	Percent
Women	173	38.6
Men	274	61.3
Racial/Ethnic Group		
Asian American	74	16.5
Biracial/Multiracial	11	2.5
Black/African American	67	15.0
Hispanic/Latino American	72	16.1
White/European American	219	48.9
Other	5	1.1
Socioeconomic Background		
No Income	8	1.8
Low Income	50	11.2
Middle Income	185	41.3
Upper Middle Income	158	35.3
High Income	46	10.3
Participation Level		
NCAA Sport	122	27.2
Club Sport	104	23.2
Intramural Sport	119	26.6
No Sport	103	23.0
Class Standing		
First-year	64	14.3
Sophomore	85	19.0
Junior	119	26.6
Senior	176	39.3

Table 4: Participant Demographics by Group (in %)

Gender	NCAA	Club	Intramural	No Sport
Women	36.9	47.1	22.7	50.5
Men	63.1	51.9	77.3	49.5
Racial/Ethnic Group				
Asian American	0.8	18.3	26.9	21.4
Black/African American	42.6	2.9	3.4	7.8
Hispanic/Latino American	4.1	21.2	18.5	22.3
White/European American	50.8	47.1	49.6	47.6
Other	1.6	10.6	1.7	1.0
Socioeconomic Background				
No Income	4.1	1.0	0.8	1.0
Low Income	8.2	13.5	5.9	18.4
Middle Income	49.2	36.5	38.7	39.8
Upper Middle Income	28.7	41.6	42.9	28.2
High Income	9.8	7.7	10.9	12.6
Class Standing				
First-year	31.1	6.7	9.2	7.8
Sophomore	21.3	16.3	21.8	15.5
Junior	23.8	26.9	28.6	27.2
Senior	21.3	50.0	40.3	48.5

Table 5: Frequency of NCAA Participants by Sport

Sport	All NCAA	Black	White	Male	Female
Baseball	9	0	8	9	0
Basketball	10	7	3	6	4
Cross Country/Track	6	0	6	2	4
Football	41	28	11	41	0
Golf	1	0	1	1	0
Rowing	5	0	3	0	5
Soccer	4	1	3	0	4
Softball	6	2	4	0	6
Swimming & Diving	12	0	12	8	4
Tennis	4	0	3	0	4
Track & Field	18	10	8	10	8
Volleyball	6	4	3	0	6

Table 6: Correlations Among Demographic and Academic Socialization Variables for All Groups

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Gender	-																			
2. Race/Ethnicity	.09	-																		
3. Age	-.07	-.05	-																	
4. Class Standing	.02	-.09	.82***	-																
5. GPA	.13**	.11*	-.05	.06	-															
6. SES Background	.06	.29***	-.03	.02	.17***	-														
7. Participation Level	.03	-.07	.21***	.23***	.13**		-													
8. Acad. Aspirations	.06	-.09	.05	.07	.02	-.05	.05	-												
9. Acad. Expectations	.05	-.06	.05	.09	.03	.03	-.11*	.68***	-											
10. Ed. Encouragement	.15***	.08	-.16**	-.17***	-.03	.03	.01	-.02	-.20	-										
11. Value of Ed.	.22**	.04	-.12*	-.10	.18***	.14**	.08	.05	.02	.16**	-									
12. Acad. Involvement	.04	.05	-.25***	-.27***	-.20***	-.03	-.36***	-.01	.02	.51***	-.06	-								
13. PSE	-.11*	-.02	-.24***	-.29***	-.21***	-.03	-.63***	-.08	-.03	.11*	-.18	.39***	-							
14. Athletic Identity	-.18***	.09	-.10*	-.19***	.03	.17***	-.65***	-.13**	-.05	.05	-.14**	.29***	.55***	-						
15. Family/Parent	-.03	.12*	-.03	.03	.07	.15**	.15**	-.00	-.03	.31***	.03	.16**	-.18**	-.09	-					
16. Professor	.03	.01	.08	.10*	.04	.06	.19***	.06	.08	.06	-.01	.02	-.18**	.13***	-.07	-				
17. Coach	-.03	.00	.00	-.13**	-.16**	-.10*	-.28***	-.06	-.08	-.13**	.22***	.35***	.23***	-.12*	-.31***	.04	-			
18. Peer	-.01	-.14**	.05	.08	-.04	.05	.18***	.08	.05	-.03	-.04	-.09	-.15**	-.17***	-.12*	-.06	-.02	-		
19. No One	-.02	-.06	.20***	.16**	.12*	-.03	.16**	-.02	-.01	-.48***	.07	-.61***	-.21***	-.44***	-.31***	-.15*	-.18***	-.05	-	
20. Mentor/Counselor	.01	.05	-.23***	-.29***	-.12*	-.05	-.51***	-.09	-.05	.19***	.04	.44***	.49***	.37***	-.35***	-.23***	.03	-.27***	-.21***	-

Note. PSE = Professional Sport Expectations

$*p < .05$, $**p < .01$, $***p < .001$

Table 7: Correlations Among Demographic Variables and Weekly Hours on School/Sports

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	-												
2. Race/Ethnicity	.10	-											
3. Age	-.12*	-.08	-										
4. Class Standing	-.01	-.10	.84***	-									
5. GPA	.12*	.11	-.07	.01	-								
6. SES Background	.08	.32***	.00	.08	.19**	-							
7. Participation Level	-.12*	-.11	-.22***	.23***	.15**	.12*	-						
8. Pro Sport Expectations	-.08	.00	-.25***	-.30***	-.23***	-.27***	-.69***	-					
9. Athletic Identity	-.05	.05	-.10	-.16**	-.25***	-.05	-.54***	.55***	-				
10. Sport Hours (Season)	-.04	.08	-.16**	-.17**	-.14*	-.14*	-.78***	.62***	.47***	-			
11. Sport Hours (Offseason)	-.06	.06	-.21***	-.22***	-.20***	-.21***	-.73***	.65***	.47***	.86***	-		
12. School Hours (Season)	.10	-.04	-.07	-.06	.04	-.01	.10	-.10	-.13*	-.07	-.04	-	
13. School Hours (Offseason)	.10	-.07	-.07	-.03	.05	-.03	.03	-.03	-.07	.03	.03	.86***	-

Note. $*p < .05, **p < .01, ***p < .001$
PSE = Professional Sport Expectations

Table 8: Hypothesis 1a – Means, Standard Deviations, and Analyses of Variance for GPA and Types of Academic Socialization

Variable	All Groups M (SD)	NCAA M (SD)	Club M (SD)	Intramural M (SD)	No Sport M (SD)	df	F	p	η_p^2
Grade Point Average (GPA)	3.17 (0.51)	3.07 (0.48)	3.14 (0.55)	3.25 (0.50)	3.23 (0.51)	(3, 424)	**2.90**	**.04***	**.020**
Academic Aspirations	2.83 (0.87)	2.68 (0.81)	2.99 (0.91)	2.83 (0.85)	2.84 (0.89)	(3, 444)	2.44	.06	.016
Academic Expectations	2.75 (0.82)	2.66 (0.76)	2.87 (0.90)	2.78 (0.80)	2.70 (0.83)	(3, 444)	1.41	.24	.009
Academic Involvement	26.50 (7.08)	32.21 (5.09)	24.14 (7.15)	24.61 (6.24)	24.70 (6.39)	(3, 425)	**42.48**	**< .001***	**.231**
Educational Encouragement	52.68 (10.51)	55.07 (9.44)	52.29 (11.90)	51.00 (9.16)	52.26 (11.35)	(3, 404)	**2.97**	**.03***	**.022**
Value of Education	18.63 (3.47)	18.23 (3.30)	18.54 (3.57)	18.87 (3.55)	18.94 (3.45)	(3, 433)	1.03	.38	.007

Note. *$p < .05$, ***$p < .001$
Academic Aspirations- Min: 1; Max: 4
Academic Expectations- Min: 1; Max: 4
Academic Involvement- Min: 5; Max: 40
Educational Encouragement- Min: 12; Max: 72
Value of Education- Min: 5; Max: 25

Table 9: Hypothesis 1b – Frequency of Primary Socializer Selection by Type of Academic Socialization

	All Groups		NCAA		Club		Intramural		No Sport	
All Socialization Types	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**8.87 (6.54)**	**37**	6.79 (6.06)	28	**9.38 (6.54)**	**39**	**10.26 (6.35)**	**42**	**9.22 (6.81)**	**39**
Professor	2.40 (3.00)	10	1.21 (1.75)	5	2.87 (3.55)	12	2.78 (2.93)	11	2.87 (3.30)	12
Coach	0.58 (1.68)	2	1.55 (2.67)	6	0.26 (0.80)	1	0.13 (0.40)	1	0.30 (1.22)	1
Peer	3.60 (4.28)	15	2.05 (3.68)	9	4.09 (4.41)	17	4.39 (3.96)	18	4.05 (4.74)	17
Ac. Mentor/Counselor	2.68 (5.35)	11	**8.41 (7.28)**	**35**	0.33 (0.86)	1	0.65 (1.51)	3	0.61 (2.30)	3
No One	*6.10 (5.39)*	*25*	*4.05 (4.02)*	*17*	*7.42 (5.98)*	*31*	*6.39 (5.25)*	*26*	*6.85 (5.71)*	*29*
Educational Encouragement	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**4.16 (3.73)**	**36**	*3.16 (3.31)*	*27*	**4.49 (3.76)**	**38**	**4.76 (3.79)**	**40**	**4.32 (3.92)**	**38**
Professor	1.74 (2.18)	15	0.98 (1.45)	9	2.04 (2.47)	17	1.98 (2.15)	17	2.08 (2.41)	18
Coach	0.26 (0.82)	2	0.70 (1.29)	6	0.13 (0.46)	1	0.06 (0.24)	1	0.12 (0.58)	1
Peer	*2.27 (2.88)*	*20*	1.23 (2.19)	11	*2.45 (2.87)*	*21*	*2.93 (3.06)*	*25*	*2.55 (3.11)*	*22*
Ac. Mentor/Counselor	1.33 (3.01)	11	**4.29 (4.39)**	**37**	0.19 (0.56)	2	0.27 (0.83)	2	0.22 (1.25)	2
No One	1.87 (2.85)	16	1.21 (2.11)	11	2.39 (3.35)	21	1.84 (2.70)	16	2.14 (3.11)	19
Value of Education	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**2.04 (1.53)**	**42**	**2.05 (1.60)**	**43**	*1.92 (1.50)*	*40*	**2.11 (1.57)**	**43**	**2.08 (1.47)**	**43**
Professor	0.15 (0.48)	3	0.04 (0.20)	1	0.13 (0.37)	3	0.22 (0.68)	5	0.22 (0.52)	5
Coach	0.07 (0.30)	1	0.12 (0.40)	3	0.05 (0.26)	1	0.03 (0.18)	1	0.07 (0.32)	1
Peer	0.45 (0.81)	9	0.33 (0.78)	7	0.55 (0.96)	11	0.53 (0.71)	11	0.41 (0.77)	9
Ac. Mentor/Counselor	0.09 (0.44)	2	0.22 (0.71)	5	0.04 (0.31)	1	0.05 (0.22)	1	0.04 (0.24)	1
No One	*2.03 (1.63)*	*42*	*2.04 (1.63)*	*43*	**2.12 (1.63)**	**44**	*2.00 (1.68)*	*41*	*1.97 (1.58)*	*41*
Academic Involvement	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%	M (SD)	%
Parent/Family	**2.67 (2.44)**	**35**	*1.58 (2.17)*	*21*	**2.97 (2.35)**	**38**	**3.39 (2.45)**	**44**	**2.83 (2.40)**	**37**
Professor	0.50 (1.09)	7	0.20 (0.79)	3	0.69 (1.22)	9	0.58 (1.13)	7	0.57 (1.15)	7
Coach	0.25 (0.92)	3	0.72 (1.53)	9	0.09 (0.44)	1	0.03 (0.22)	0.4	0.12 (0.57)	2
Peer	0.88 (1.52)	11	0.49 (1.51)	6	1.09 (1.53)	14	0.92 (1.34)	12	1.09 (1.65)	14
Ac. Mentor/Counselor	1.25 (2.39)	16	**3.90 (3.12)**	**51**	0.10 (0.36)	1	0.33 (0.81)	4	0.35 (1.05)	5
No One	*2.20 (2.31)*	*28*	0.80 (1.46)	10	*2.91 (2.29)*	*37*	*2.55 (2.44)*	*33*	*2.75 (2.31)*	*36*

Note. Most frequent socializers are in **bold** and second most frequent socializers are *italicized* within each group.

Table 10: Hypothesis 1b – Means, Standard Deviations, and Analyses of Variance for Sources of Academic Socialization

Variable	All Groups M (SD)	NCAA M (SD)	Club M (SD)	Intramural M (SD)	No Sport M (SD)	df	F	p	η_p^2
Parent/Family	8.87 (6.54)	6.79 (6.06)	9.38 (6.54)	10.26 (6.35)	9.22 (6.81)	(3, 444)	**6.46**	**< .001***	**.042**
Professor	2.40 (3.00)	1.21 (1.75)	2.87 (3.55)	2.78 (2.93)	2.87 (3.30)	(3, 444)	**9.16**	**< .001***	**.058**
Coach	0.58 (1.68)	1.55 (2.67)	0.26 (0.80)	0.13 (0.40)	0.30 (1.22)	(3, 444)	**21.21**	**< .001***	**.125**
Peer	3.60 (4.28)	2.05 (3.68)	4.09 (4.41)	4.39 (3.96)	4.05 (4.74)	(3, 444)	**7.84**	**< .001***	**.050**
Ac. Mentor/Counselor	2.68 (5.35)	8.41 (7.28)	0.33 (0.86)	0.65 (1.51)	0.61 (2.30)	(3, 444)	**111.75**	**< .001***	**.430**
No One	6.10 (5.39)	4.05 (4.02)	7.42 (5.98)	6.39 (5.25)	6.85 (5.71)	(3, 444)	**9.25**	**< .001***	**.059**

Note. ***$p < .001$
All Variables- Min: 0; Max: 25

Table 11: Hypothesis 2a – Regression Analysis Summary for Academic Socialization
Variables Predicting GPA

Variable	B	95% CI	β	t	p
Academic Expectations	.005	[-.055, .065]	.008	.169	.87
Academic Involvement	-.015	[-.023, -.007]	-.206	-3.581	**< .001***
Educational Encouragement	.003	[-.003, .008]	.057	.975	.33
Value of Education	.011	[-.004, .026]	.075	1.422	.16

Note. Adjusted R^2 = .069 (N= 373, p < .001); CI= confidence interval for B;
Controlling for Gender and SES; ***p < .001.

Table 12: Hypothesis 2a – Split-Group Regression Analysis Summary for Academic Socialization Variables Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .149; N= 90; p = .003)**:**					
Academic Expectations	.014	[-.114, .142]	.021	.214	.83
Academic Involvement	-.005	[-.026, .016]	-.053	-.493	.62
Educational Encouragement	.011	[-.002, .024]	.202	1.721	.09
Value of Education	.015	[-.019, .048]	.098	.867	.39
Club (Adj. R^2 = .041; N= 86; p = .155)**:**					
Academic Expectations	-.091	[-.210, .029]	-.163	-1.515	.13
Academic Involvement	-.018	[-.039, .003]	-.233	-1.690	.10
Educational Encouragement	.002	[-0.10, .014]	.045	.328	.74
Value of Education	-.001	[-.034, .032]	-.005	-.050	.96
Intramural (Adj. R^2= .011; N= 106; p = .313)**:**					
Academic Expectations	.043	[-.079, .165]	.069	.679	.49
Academic Involvement	-.014	[-.032, .005]	-.169	-1.428	.16
Educational Encouragement	.006	[-.007, .019]	.111	.909	.37
Value of Education	.015	[-.014, .044]	.109	1.044	.30
No Sport (Adj. R^2=.068; N=91; p = .063)**:**					
Academic Expectations	.092	[-.031, .214]	.154	1.488	.14
Academic Involvement	-.019	[-.037, -.001]	-.237	-2.098	**.04***
Educational Encouragement	-.003	[-.013, .007]	-.059	-.534	.59
Value of Education	-.006	[-.036, .024]	-.042	-.400	.69

Note. Controlling for Gender and SES; CI= confidence interval for B.
*p < .05.

Table 13: Hypothesis 2b – Regression Analysis Summary for Academic Socialization
Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
Academic Expectations	-.061	[-.257, .134]	-.028	-.618	.54
Academic Involvement	.112	[.086, .139]	.429	8.273	**< .001***
Educational Encouragement	-.011	[-.030, .007]	-.063	-1.189	.24
Value of Education	-.058	[-.107, -.009]	-.110	-2.332	**.02***

Note. Adjusted R^2 = .225 (N= 388, $p < .001$); CI= confidence interval for B;
Controlling for Gender and SES; *$p < .05$; ***$p < .001$.

Table 14: Hypothesis 2b – Split-Group Regression Analysis Summary for Academic Socialization Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .153; N= 100; p = .001)**:**					
Academic Expectations	.033	[-.406, .471]	.014	.149	.88
Academic Involvement	.006	[-.068, .079]	.015	.149	.88
Educational Encouragement	.008	[-.036, .052]	.039	.358	.72
Value of Education	-.047	[-.163, .068]	-.088	-.813	.42
Club (Adj. R^2 = .062; N= 89; p = .079)**:**					
Academic Expectations	.075	[-.213, .363]	.054	.515	.61
Academic Involvement	.041	[-.009, .091]	.221	1.614	.11
Educational Encouragement	.004	[-.024, .033]	.042	.311	.76
Value of Education	-.011	[-.090, .068]	-.029	-.270	.79
Intramural (Adj. R^2= .168; N= 106; p < .001)**:**					
Academic Expectations	-.070	[-.242, .103]	-.072	-.798	.43
Academic Involvement	.005	[-.021, .032]	.044	.406	.69
Educational Encouragement	.010	[-.009, .029]	.115	1.031	.31
Value of Education	-.052	[-.093, -.011]	-.243	-2.529	**.01***
No Sport (Adj. R^2= .071; N= 93; p = .054)**:**					
Academic Expectations	.087	[-.103, .278]	.093	.912	.36
Academic Involvement	-.013	[-.041, .015]	-.104	-.934	.35
Educational Encouragement	-.004	[-.019, .012]	-.052	-.475	.64
Value of Education	-.073	[-.119, -.027]	-.325	-3.134	**.002***

Note. Controlling for Gender and SES; CI= confidence interval for B.
*p < .05; **p < .01.

Table 15: Hypothesis 3a – Regression Analysis Summary for Sources of Academic
Socialization Variables Predicting GPA

Variable	B	95% CI	β	t	p
Parent/Family	-.004	[-.013, .005]	-.047	-.791	.43
Professor	.000	[-.017, .017]	.002	.030	.98
Coach	-.043	[-.072, -.015]	-.144	-2.971	.003**
Peer	-.009	[-.022, .004]	-.074	-1.315	.19
Academic Mentor/Counselor	-.014	[-.025, -.002]	-.138	-2.292	.02*

Note. Adjusted R^2 = .050 (N= 427, $p < .001$); CI= confidence interval for B;
Controlling for SES and Class Standing; *$p < .05$; **$p < .01$.

Table 16: Hypothesis 3a – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (R^2 = .085; N= 108; *p* = .024)**:**					
Parent/Family	.008	[-.013, .028]	.099	.738	.46
Professor	.058	[.007, .110]	.219	2.240	**.03***
Coach	-.018	[-.054, .018]	-.104	-.986	.33
Peer	.030	[.002, .059]	.244	2.092	**.04***
Academic Mentor/Counselor	.010	[-.010, .030]	.156	.994	.32
Club (Adj. R^2= .022; N=100; *p* = .250)**:**					
Parent/Family	.000	[-.020, .019]	-.003	-.021	.98
Professor	.000	[-.033, .034]	.002	.014	.99
Coach	-.055	[-.195, .085]	-.082	-.777	.44
Peer	-.010	[-.041, .021]	-.076	-.653	.52
Academic Mentor/Counselor	-.081	[-.215, .054]	-.124	-1.192	.24
Intramural (Adj. R^2= .090; N= 118; *p* = .014)**:**					
Parent/Family	-.007	[-.024, .009]	-.095	-.877	.38
Professor	.006	[-.026, .038]	.036	.384	.70
Coach	-.199	[-.422, .025]	-.160	-1.763	.08
Peer	-.028	[-.055, .000]	-.219	-2.016	**.05***
Academic Mentor/Counselor	-.079	[-.138, -.020]	-.238	-2.635	**.01***
No Sport (Adj. R^2= .113; N= 101; *p* = .010)**:**					
Parent/Family	-.007	[-.024, .011]	-.087	-.754	.45
Professor	-.022	[-.054, .010]	-.142	-1.387	.17
Coach	-.082	[-.164, .001]	-.196	-1.968	.05
Peer	-.009	[-.032, .015]	-.081	-.741	.46
Academic Mentor/Counselor	-.053	[-.096, -.010]	-.239	-2.433	**.02***

Note. Controlling for SES and Class Standing; CI= confidence interval for B.
*p < .05.

Table 17: Hypothesis 3b – Regression Analysis Summary for Sources of Academic
Socialization Variables Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
Parent/Family	.004	[-.022, .030]	.013	.283	.78
Professor	-.047	[-.096, .001]	-.076	-1.906	.06
Coach	.349	[.266, .433]	.313	8.222	**< .001***
Peer	-.015	[-.054, .023]	-.036	-.798	.43
Academic Mentor/Counselor	.142	[.109, .175]	.409	8.463	**< .001***

Note. Adjusted R^2 = .384 (N= 445, p < .001); CI= confidence interval for B;
Controlling for SES and Class Standing; ***p < .001.

Table 18: Hypothesis 3b – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting Professional Sport Expectations

Variable	B	95% CI	β	t	p
NCAA (R^2 = .102; N= 121; p = .007)**:**					
Parent/Family	-.013	[-.082, .056]	-.045	-.367	.71
Professor	-.076	[-.255, .102]	-.078	-.844	.40
Coach	.031	[-.093, .155]	.048	.497	.62
Peer	-.007	[-.106, .092]	-.015	-.136	.89
Academic Mentor/Counselor	-.014	[-.081, .054]	-.057	-.396	.69
Club (Adj. R^2= .010; N= 103; p = .345)**:**					
Parent/Family	.032	[-.014, .078]	.163	1.395	.17
Professor	.006	[-.074, .086]	.016	.143	.89
Coach	.252	[-.164, .669]	.127	1.202	.23
Peer	.039	[-.028, .106]	.133	1.162	.25
Academic Mentor/Counselor	.051	[-.252, .354]	.034	.336	.74
Intramural (Adj. R^2= .158; N= 118; p < .001)**:**					
Parent/Family	-.010	[-.034, .014]	-.086	-.825	.41
Professor	.030	[-.016, .076]	.116	1.286	.20
Coach	.259	[-.059, .578]	.141	1.612	.11
Peer	-.032	[-.071, .006]	-.173	-1.656	.10
Academic Mentor/Counselor	.065	[-.020, .150]	.133	1.523	.13
No Sport (Adj. R^2= .173; N= 103; p = .001)**:**					
Parent/Family	-.032	[-.063, -.001]	-.223	-2.036	**.05***
Professor	-.049	[-.106, .007]	-.168	-1.733	.09
Coach	.326	[.177, .476]	.411	4.335	**< .001***
Peer	-.021	[-.063, .021]	-.102	-.983	.33
Academic Mentor/Counselor	-.020	[-.098, .058]	-.048	-.509	.61

Note. Controlling for SES and Class Standing; CI= confidence interval for B;
*p < .05, ***p < .001

Table 19: Hypothesis 4a – Means, Standard Deviations, and Analyses of Variance for Sport-Related Variables

Variable	Athlete Groups	NCAA	Club	Intramural	df	F	p	η_p^2
	M (SD)	M (SD)	M (SD)	M (SD)				
Athletic Identity	34.25 (8.48)	40.32 (5.67)	32.78 (6.82)	29.35 (8.46)	(2, 337)	**74.47**	**<.001***	**.306**
School Hrs. (Season)	13.91 (8.97)	12.40 (7.90)	15.01 (9.87)	14.49 (9.05)	(2, 342)	2.78	.06	.016
School Hrs. (Offseason)	14.46 (9.54)	14.03 (9.13)	14.58 (9.78)	14.81 (9.80)	(2, 342)	0.21	.81	.001
Sports Hrs. (Season)	12.63 (11.42)	24.36 (10.40)	9.59 (5.15)	3.25 (2.64)	(2, 342)	**289.79**	**<.001***	**.629**
Sports Hrs. (Offseason)	8.91 (9.33)	18.16 (9.13)	5.97 (4.31)	1.99 (2.74)	(2, 342)	**225.70**	**<.001***	**.569**
Total PSE	2.66 (1.96)	4.61 (1.72)	1.84 (1.29)	1.37 (0.74)	(2, 341)	**208.85**	**<.001***	**.551**
PSE (Self)	2.71 (2.09)	4.71 (1.92)	1.91 (1.48)	1.34 (0.68)	(2, 341)	**182.94**	**<.001***	**.518**
PSE (Coach)	2.72 (2.02)	4.62 (1.73)	1.67 (1.20)	1.42 (0.94)	(2, 342)	**170.41**	**<.001***	**.499**
PSE (Family)	2.55 (2.01)	4.48 (1.98)	1.99 (1.50)	1.34 (0.74)	(2, 342)	**176.68**	**<.001***	**.508**

Note. ***p < .001
Athletic Identity- Min: 7; Max: 49
All PSE Variables- Min: 1; Max: 7

Table 20: Hypothesis 4b – Regression Analysis Summary for Athletic Identity, Weekly Hours Spent on School/Sports During the Season/Offseason, and Professional Sport Expectations Predicting GPA

Variable	B	95% CI	β	t	p
Athletic Identity	-.013	[-.020, -.005]	-.218	-3.321	**.001****
School Hrs. (Season)	-.006	[-.017, .006]	-.106	-1.001	.32
School Hrs. (Offseason)	.006	[-.005, .016]	.110	1.045	.30
Sports Hrs. (Season)	.009	[-.001, .018]	.197	1.825	.07
Sports Hrs. (Offseason)	-.011	[-.023, .001]	-.191	-1.725	.09
Professional Sport Expectations	-.028	[-.068, .013]	-.107	-1.336	.18

Note. Adj. R^2 = .105; N= 320; p < .001; Controlling for SES, Gender, and Class Standing; CI= confidence interval for B.
**p < .01.

Table 21: Hypothesis 4b – Split-Group Regression Analysis Summary for Athletic Identity, Weekly Hours Spent on School/Sports During the Season/Offseason, and Professional Sport Expectations Predicting GPA

Variable	B	95% CI	β	t	p
NCAA (Adj. R^2 = .202; N= 107; $p < .001$)**:**					
Athletic Identity	-.011	[-.027, .005]	-.133	-1.394	.17
School Hrs. (Season)	.014	[-.010, .037]	.228	1.171	.24
School Hrs. (Offseason)	-.005	[-.024, .014]	-.101	-.536	.59
Sports Hrs. (Season)	.006	[-.004, .016]	.129	1.122	.27
Sports Hrs. (Offseason)	-.013	[-.026, .000]	-.255	-2.054	**.04***
Professional Sport Expectations	-.034	[-.092, .024]	-.122	-1.167	.25
Club (Adj. R^2= .000; N= 96; $p = .48$)**:**					
Athletic Identity	-.014	[-.032, .004]	-.179	-1.564	.12
School Hrs. (Season)	-.004	[-.022, .014]	-.084	-.476	.64
School Hrs. (Offseason)	.010	[-.008, .028]	.184	1.060	.29
Sports Hrs. (Season)	.009	[-.022, .039]	.086	.579	.56
Sports Hrs. (Offseason)	-.005	[-.040, .031]	-.038	-.262	.79
Professional Sport Expectations	.005	[-.084, .093]	.012	.109	.914
Intramural (Adj. R^2= .162; N= 117; $p = .001$)**:**					
Athletic Identity	-.016	[-.027, -.005]	-.271	-2.935	**.004****
School Hrs. (Season)	-.009	[-.034, .015]	-.170	-.760	.45
School Hrs. (Offseason)	.000	[-.023, .022]	-.007	-.029	.98
Sports Hrs. (Season)	.015	[-.036, .065]	.077	.565	.57
Sports Hrs. (Offseason)	-.011	[-.060, .037]	-.063	-.464	.64
Professional Sport Expectations	-.160	[-.308, -.012]	-.216	-2.139	**.04***

Note. Controlling for SES, Gender, and Class Standing; CI= confidence interval for B. *$p < .05$, **$p < .01$.

Table 22: Mediation of the Effect of Pro Sport Expectations on GPA Through Weekly Hours Spent on School (Season) and Weekly Hours Spent of Sport (Offseason), Controlling for Athletic Identity

| | | Product of Coefficients | | Bootstrapping Bias Corrected 95% Confidence Interval | |
	Point Estimate	SE	Z	Lower	Upper
		Indirect Effects			
School Hours (Season)	-.0109	.0073	-1.51	-.0285	.0004
Sport Hours (Offseason)	-.0194	.0091	**-2.15***	-.0417	-.0058
TOTAL	-.0303	.0109	**-2.78****	-.0548	-.0121

Note. Adj. R^2 = .16; $F(4, 103)$ = 6.16; $p < .001$; 5,000 bootstrap samples
*$p < .05$; **$p < .01$.

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Table 23: Hypothesis 6a/b – Means, Standard Deviations, and Analyses of Variance for Black and White NCAA Athletes

Variable	All NCAA Athletes M (SD)	Black/African American M (SD)	White/European American M (SD)	df	F	p	η_p^2
GPA	3.07 (0.48)	2.94 (0.44)	3.16 (0.50)	(1, 101)	**5.58**	**.02***	**.052**
Academic Aspirations	2.68 (0.81)	2.73 (0.77)	2.63 (0.83)	(1, 112)	.45	.50	.004
Academic Expectations	2.66 (0.76)	2.63 (0.74)	2.63 (0.77)	(1, 112)	.002	.97	.000
Academic Involvement	32.21 (5.09)	33.33 (4.97)	31.33 (5.07)	(1, 102)	**4.06**	**.05***	**.038**
Ed. Encouragement	55.07 (9.44)	53.70 (11.43)	55.81 (7.54)	(1, 102)	1.28	.26	.012
Value of Education	18.23 (3.30)	18.51 (3.52)	17.98 (3.20)	(1, 110)	.69	.41	.006
Athletic Identity	40.32 (5.67)	40.35 (5.81)	40.33 (5.70)	(1, 111)	.000	.99	.000
School Hrs. (Season)	12.40 (7.90)	10.96 (6.47)	13.36 (7.40)	(1, 112)	3.32	.07	.029
School Hrs. (Offseason)	14.03 (9.13)	13.17 (8.71)	14.21 (7.42)	(1, 112)	.47	.49	.004
Sports Hrs. (Season)	24.36 (10.40)	25.22 (12.84)	23.44 (7.62)	(1, 112)	.85	.36	.007
Sports Hrs. (Offseason)	18.16 (9.13)	19.69 (11.70)	16.87 (5.91)	(1, 112)	2.77	.10	.024
Total PSE	4.61 (1.72)	5.21 (1.53)	4.05 (1.73)	(1, 112)	**13.93**	**< .001***	**.111**
PSE (Self)	4.71 (1.92)	5.40 (1.67)	4.11 (1.89)	(1, 112)	**14.63**	**< .001***	**.116**
PSE (Coach)	4.62 (1.73)	5.02 (1.59)	4.24 (1.79)	(1, 112)	**5.90**	**.02***	**.050**
PSE (Family)	4.48 (1.98)	5.21 (1.71)	3.82 (1.94)	(1, 112)	**16.18**	**< .001***	**.126**

Note. *p < .05, ***p < .001
PSE = Professional Sport Expectations

Table 24: Hypothesis 6c/d – Means, Standard Deviations, and Analyses of Variance for NCAA Men and Women

Variable	All NCAA Athletes M (SD)	NCAA Men M (SD)	NCAA Women M (SD)	df	F	p	η_p^2
GPA	3.07 (0.48)	2.94 (0.44)	3.31 (0.46)	(1, 107)	16.52	< .001***	.134
Academic Aspirations	2.68 (0.81)	2.65 (0.66)	2.73 (1.01)	(1, 120)	.31	.58	.003
Academic Expectations	2.66 (0.76)	2.64 (0.67)	2.69 (0.90)	(1, 120)	.14	.71	.001
Academic Involvement	32.21 (5.09)	31.91 (4.95)	32.69 (5.34)	(1, 110)	.61	.44	.006
Ed. Encouragement	55.07 (9.44)	53.03 (9.81)	58.74 (7.53)	(1, 107)	9.95	.002**	.085
Value of Education	18.23 (3.30)	17.16 (3.18)	20.07 (2.66)	(1, 118)	26.20	< .001***	.182
Athletic Identity	40.32 (5.67)	40.18 (6.00)	40.56 (5.09)	(1, 118)	.12	.73	.001
School Hrs. (Season)	12.40 (7.90)	11.34 (6.47)	14.22 (9.69)	(1, 120)	3.88	.05*	.031
School Hrs. (Offseason)	14.03 (9.13)	12.84 (6.86)	16.07 (11.88)	(1, 120)	3.61	.06	.029
Sports Hrs. (Season)	24.36 (10.40)	26.12 (12.17)	21.33 (5.19)	(1, 120)	6.29	.01*	.050
Sports Hrs. (Offseason)	18.16 (9.13)	20.01 (10.31)	14.98 (5.41)	(1, 120)	9.22	.003**	.071
Total PSE	4.61 (1.72)	4.99 (1.61)	3.96 (1.73)	(1, 120)	11.01	.001**	.084
PSE (Self)	4.71 (1.92)	5.08 (1.82)	4.09 (1.95)	(1, 120)	7.95	.006**	.062
PSE (Coach)	4.62 (1.73)	4.99 (1.66)	4.00 (1.69)	(1, 120)	9.91	.002**	.076
PSE (Family)	4.48 (1.98)	4.90 (1.84)	3.78 (2.02)	(1, 120)	9.76	.002**	.075

Note. *p < .05, **p < .01, ***p < .001
PSE = Professional Sport Expectations

Table 25: Hypothesis 7a – Split-Group Regression Analysis Summary for Sources of
Academic Socialization Predicting GPA for Black and White NCAA Athletes

Variable	B	95% CI	β	t	p
Black NCAA (Adj. R^2 = .177; N= 45; p = .04)**:**					
Parent/Family	-.001	[-.025, .023]	-.022	-.119	.91
Professor	.055	[-.016, .127]	.231	1.570	.13
Coach	-.027	[-.073, .019]	-.180	-1.203	.24
Peer	.050	[.011, .088]	.425	2.582	**.01***
Academic Mentor/Counselor	.017	[-.006, .041]	.314	1.504	.14
White NCAA (Adj. R^2= .007; N= 57; p = .403)**:**					
Parent/Family	.004	[-.033, .041]	.051	.226	.82
Professor	.043	[-.044, .129]	.149	.992	.33
Coach	-.029	[-.100, .042]	-.133	-.813	.42
Peer	-.002	[-.052, .047]	-.020	-.100	.92
Academic Mentor/Counselor	-.008	[-.047, .031]	-.114	-.417	.68

Note. Controlling for SES and Class Standing; CI= confidence interval for B.
*p < .05.

Table 26: Hypothesis 7b – Split-Group Regression Analysis Summary for Sources of Academic Socialization Predicting Pro Sport Expectations for Black and White NCAA Athletes

Variable	B	95% CI	β	t	p
Black NCAA (Adj. R^2 = .000; N= 51; *p* = .93)**:**					
Parent/Family	.034	[-.059, .126]	.145	.736	.47
Professor	-.045	[-.328, .238]	-.051	-.319	.75
Coach	.060	[-.117, .237]	.110	.682	.50
Peer	-.019	[-.168, .129]	-.045	-.263	.79
Academic Mentor/Counselor	.007	[-.082, .095]	.036	.158	.88
White NCAA (Adj. R^2= .055; N= 62; *p* = .18)**:**					
Parent/Family	-.042	[-.162, .079]	-.143	-.689	.49
Professor	-.055	[-.329, .220]	-.056	-.399	.69
Coach	.012	[-.223, .247]	.015	.100	.92
Peer	.059	[-.108, .226]	.133	.708	.48
Academic Mentor/Counselor	-.011	[-.140, .118]	-.043	-.169	.87

Note. Controlling for SES and Class Standing; CI= confidence interval for B.

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