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### **Athletics and Academics: The Relationship Between Athletic Identity Sub- Constructs and Educational Outcomes**

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*In this article, we explore the relationship between athletic identity factors and the educational outcomes of GPA, community service, and athlete demographics. College athletes across all NCAA divisions (N = 546) completed questionnaires related to their athletic identity, GPA, community service participation, and demographics. When comparing athletic identity subscales to GPA, exclusivity was found to be statistically significant, but social identity and negative affectivity were not significant. Athletic identity subscales did not have a statistically significant relationship related to college athlete community service participation. Lastly, no statistical significance was reported between athletic identity subscales and gender, race, or year in college. Findings highlight a lack of relationship between athletic identity sub constructs and college athlete GPA, community service participation, and college athlete demographics.*

Community service has become an increasing priority for college athletes and athletic departments alike. The 2016 NCAA GOALS study indicated college athletes are participating in community service in record numbers, both in general participation and total time commitment (NCAA, 2016). Universities are also more likely to monitor and publicize their athletes' community involvement with numerous athletic department websites publicizing the frequency of their athletes visiting hospitals, serving the needy, and supporting lesser-known causes (Andrassy & Bruening, 2011; Huml, Svensson, & Hancock, 2014). Even the NCAA's website is focusing more on college athlete community outreach by creating a webpage to highlight the athletes and programs accumulating the most community service hours (NCAA, n.d.).

While how much athletic departments require their athletes to perform community service is not consistent across all schools, questions persist to the internal attitudes influencing college athletes to become more involved with their community. Previous scholars have begun to investigate community service and athletic identity (e.g., Huml, Hancock, Weight, & Hums, 2018), but surface level findings within athletic identity leave more to explore how subconstructs within athletic identity may affect community service participation. If college athletes possess a high level of athletic identity, would this reduce their interest in community service, similar to its effect on other non-sport-related activities? Athletic identity is often negatively correlated with other academic activities, but could community service run contrary to these previous findings because of the potential involvement by the athletic department and/or team to engage their athletes to become more involved?

Athletes face the difficult task of identifying the right balance between pursuing their sport and finding the time to pursue other activities such as school work and social life (Yukhymenko-Lescroart, 2018). This juggling act is particularly salient for college athletes, who are required to maintain academic eligibility while participating in varsity athletics (Bimper, 2014; Chen, Snyder, & Wagner, 2010). Managing various responsibilities raises questions about how college athletes can transition between roles (e.g., sport and school) and how prioritizing one role can negatively impact others (Comeaux & Harrison, 2011). The decision for athletes to focus more on academics or athletics has led to research in the field of role identity, believing the salience of certain identities will influence decision-making of the athlete (Beron & Piquero, 2016; Houle & Kluck, 2015). With a significant number of college athletes basing their career aspirations on the belief their athletic careers will continue into the professional ranks, scholars have indicated concern regarding the prioritization of athletics over academics (Fountain & Finley, 2011; Hardin & Pate, 2013).

Therefore, the purpose of our study was to examine the relationship between athletic identity constructs and the educational outcomes of GPA and community service. Additionally, we explored the relationship between athletic identity and athlete demographics. Examining these relationships can provide unique contributions to the field and important implications for practitioners. Examining academic and demographic differences based on the dimensions of athletic identity can provide more descriptive information to researchers and practitioners. Practitioners could implement more prescriptive programming for college athletes if findings identify specific dimensions of athletic identity are more problematic for academic outcomes or certain sub-populations of college athletes. Finding potential differences based on NCAA divisional differences would help further delineate the college athlete experience between divisional groups and findings would apply to a greater number of college athletes than previous

studies. A quantitative inquiry would also allow for scholars to examine more generalizable results from a larger sample population, compared to the rich context that has been provided from previous qualitative scholarship.

## Theoretical Framework

Role identity theory defines and describes occupation and negotiation between roles. It explains an individual's occupation of a role, and the incorporation of the meanings and expectations associated with that position (Stets & Burke, 2000). Role identity focuses on how individuals match their expectations of inhabiting a role with how they publicly interact with others when presenting this position (Burke, 1980). As individuals adopt roles, they begin to create self-meanings and personal expectations to guide them in their new identities (Thoits & Virshup, 1997). Once these meanings are established, the individuals will perform these functions as needed to protect their established identity norms (Thoits & Virshup, 1997). With a finite amount of time to dedicate toward their roles, individuals are faced with prioritizing certain identities over others. Therefore, individuals often prioritize certain roles over others based on their surrounding environment and interactions with others (Yukhymenko-Lecsroart, 2018). Certain identities can become more salient as individuals find themselves surrounded by more people incorporating the same positions, especially if these individuals are close friends and family (Stets & Burke, 2000). For example, if individuals are surrounded by others heavily pursuing sports, including members of their family stressing the importance of sport, they are more likely to identify with the athlete role.

One specific role investigated by numerous scholars is athletic identity. Athletic identity is, "the degree to which an individual identifies with the athletic role" (Brewer, Van Raalte, & Linder, 1993, p. 237). Falling within scope of identity theory, athletic identity is influenced by individuals collecting information from their surroundings to define and contextualize their role as an athlete (Ronkainen et al., 2016). Although originally conceptualized as unidimensional, athletic identity has since been defined as a multidimensional construct, consisting of *social identity* (salience of individual toward athlete role), *exclusivity* (lack of other identities), and *negative affectivity* (emotional response toward failing in their athletic role). This multidimensional scale of athletic identity, AIMS, is frequently used to measure and assess athletic identity (Brewer & Cornelius, 2001; Ronkainen et al., 2016). Previous scholars have compared the latent construct of athletic identity to other topics such as race (Beamon, 2012; Bimper, 2014), gender (Warner & Dixon, 2015), NCAA division (Huml, 2018), and transitional phases (Miller & Kerr, 2002). There is a gap in the literature, however, related to differences compared to athletic identity sub-constructs (*social identity*, *exclusivity*, and *negative affectivity*). These sub-constructs provide nuance to the importance of the athlete projecting his/her role onto others (social identity; "I consider myself an athlete"), the absolute nature of their sport involvement (exclusivity; "sport is the most important thing in my life"), and the personal ramifications stemming from poor athletic performance (negative affectivity; "I feel bad about myself when I do poorly in sport"). Scholarship on these distinct entities of athletic identity have been previously established, most prominently within the concept of social identity. Researchers have documented both positive and negative ramifications of student-athletes being known in their community for being athletes, and for primarily identifying themselves as athletes (Carless & Douglas, 2013; Feltz, Schneider, Hwang, & Skogsberg, 2013; Petrie, Deiters, & Harmison, 2014).

Studies on athletic identity have highlighted its negative ramifications on athletes' roles outside of sport. A strong athletic identity can persuade athletes to focus on their potential professional sporting career, therefore decreasing their career optimism outside of sport (Tyranee, Harris, & Post, 2013). Convincing an athlete to pursue career options outside of sport is often difficult unless the athlete exhausts all athletic-related career opportunities (Tyranee et al., 2013). Athletes whose athletic identity becomes their dominant role often suffer transitional challenges such as a lack of direction or reduced career optimism once sport is removed from their identity due to retirement or after suffering a catastrophic injury, such as a lack of direction or reduced career optimism (Petrie et al., 2014). Athletes can also become so involved in their athletic activities that they experience burnout (Judge, Bell, Theodore, Simon, & Bellar, 2012). Burnout has been defined as the psychological syndrome expressed through both emotional and physical exhaustion, lack of accomplishment, and depreciation of the college athlete's sport involvement (Raedeke, 1997). Burnout has been attributed to high expectations, feelings of entrapment, balancing multiple demands, perfectionism, and pressure from family and friends, among other reasons (Gustafsson, Hassmén, Kenttä, & Johansson, 2008).

Many athletes also face the difficult task of balancing their athletic identity with competing academic responsibilities. Athletes have spoken about the challenges of finding enough time to compete as an athlete and complete their schoolwork (Ryba, Stambulova, Selänne, Aunola, & Nurma, 2017). Even if an athlete found a way to provide balance between sport and school, the athlete's schedule allowed no time for other activities, such as spending time with friends or attending social events (Ryba et al., 2017). Athletes' self-concept is dependent on their athletic performance with athletes discussing how their confidence was reduced after a recent, poor performance on the playing field (Ryba et al., 2017). With athletes lacking the necessary time to successfully fulfill all of their roles, athletic departments have attempted to make improvements by offering coursework designed for athletes and trying to become better partners with academic departments on their campus (Weight & Huml, 2016). Even then, athletic departments and athletes identify numerous conflicts between academics and athletics, therefore limiting their opportunity to be successful at both (Nite, Singer, & Cunningham, 2013). Still, as athletes spend more time within the educational system, they are more likely to convert, albeit slowly, from a more salient athletic identity to a more salient academic identity (Lally & Kerr, 2005). While research is consistent on the negative side effects stemming from an athlete's strong athletic identity, there is a need to further investigate differences based on athletic identity sub-constructs.

Even with this robust literature, certain areas of identity research in intercollegiate sport are underdeveloped. First, many of these studies utilize either a case study sample or only collect data from one of the National Collegiate Athletic Association (NCAA) divisions, therefore limiting the findings to the general population (Kissinger, Newman, Miller, & Nadler, 2011; Mignano, Brewer, Winter, & Van Raalte, 2006; Woodruff & Schallert, 2008). Certain findings provide intriguing insights into athletic identity differences within demographic characteristics, but the niche populations make it difficult to further project these findings. Second, athletic identity studies often focus on surface-level differences pertaining to the athletic identity measurement scale (AIMS) and do not examine differences within the multi-dimensionality of athletic identity. Therefore, these findings only show that athletic identity is different between groups, but not how these groups differ within specific facets of athletic identity, such as *social identity*, *exclusivity*, and *negative affectivity*. Third, there is still a need to further examine athletic identity within college athlete populations. A majority of athletic identity research has

examined athletes either outside of the United States interscholastic/intercollegiate system or outside the demographic bracket that would apply to college athletes (e.g., Ronkainen, Kavoura, & Ryba, 2016), leaving a gap within the literature to explore athletes who are simultaneously navigating their athletic and academic experiences. Fourth, and more of a secondary need, researchers have previously examined the relationship between athletic identity and certain demographics, such as gender, race, and year in school. Many of these studies focused on implementing a qualitative approach for collecting data from college athletes (e.g., Beamon, 2012; Miller & Kerr, 2002; Warner & Dixon, 2015). These studies provide a unique narrative for progressing the theoretical framework of athletic identity but are still in need of the perspective of quantitative inquiry. Qualitative research provides a unique, naturalistic perspective to critical questions, but can create an environment that may not fully encapsulate the concepts at-hand (Davies & Hughes, 2014).

### *Research Context*

This research was positioned within the field of intercollegiate athletics in the United States. This context has previously been used to examine the theoretical tenets of athletic identity (Tyrance et al., 2013). Additionally, researchers have established the connection between community service and intercollegiate sport (Huml et al., 2018). Within these previous studies, Tyrance and co-authors (2013) initiated a counseling approach by analyzing career planning attitudes within a population of NCAA Division I student-athletes. They found that female athletes, athletes in revenue-producing sports, and athletes with low professional sport aspirations had reduced career optimism. Huml and co-authors (2018) collected data on a more diverse student-athlete population (all NCAA divisions) and focused on the structural relationships between the constructs of athletic identity, community service motivation, and community service benefits. Unlike these previous studies, the current approach focused more on the sub-construct differences within athletic identity instead of viewing it as a unimodal latent construct, while combining concepts discussed within Tyrance et al. (2013; gender differences, while adding race/ethnicity and year in college) and Huml et al. (2018; community service participation).

Further investigation of the relationship between athletic identity and community service participation is needed. Community service provides a unique blend of academic-like activity and opportunity that isn't related to athletics or classes. Community service provides a unique test because it is not a traditional educational activity, but does provide a bevy of education-related benefits to participants (Astin & Sax, 1998). With previous scholars supporting a negative correlation between athletic identity and academic activities (Ronkainen et al., 2016), community service would provide a unique barometer to test this relationship from an outside context. Further, while the amount of research on college athletes and community service has increased recently, these studies have either focused on other concepts, such as motivations/benefits to volunteer (Huml et al., 2018) or more on the involvement of athletic department personnel (Huml, Svensson, & Hancock, 2017), instead of college athletes. This new perspective should help address a gap of information on which specific sub-constructs within athletic identity possess a greater influence on academic-related factors. Therefore, the following hypotheses were designed to advance our understanding of the influence of athletic identity on academic-related activities:

*H<sub>1</sub>: Athletes with stronger reported athletic identity subscale scores will be more likely to report a lower GPA.*

*H<sub>2</sub>: Athletes with stronger reported athletic identity subscale scores will be more likely to report lower levels of community service participation.*

Intercollegiate sport provides an ideal environment for assessing athletic identity. College athletes are required to be successful in the classroom while performing their sport in order to maintain their NCAA eligibility. Although experiencing greater time commitments toward their sport than ever before, college athletes are also trying to maintain social life activities, while also exploring other activities on their college campus, with limited time available to pursue these possibilities (Lally & Kerr, 2005). Research indicates how college athletes lament their lack of time to pursue non-athletic activities and how salience of their athletic identity led to a lack of awareness of non-sport opportunities on their campus (Beamon, 2012). Intercollegiate sport also involves important stakeholders on campus, such as coaches or other athletic administrators, who further push their college athletes to focus on athletics (Comeaux, 2015). These studies run in concert with scholars who have criticized the NCAA's reporting standards regarding the academic performance of college athletes (Southall, 2014).

Previous studies within the context of intercollegiate athletics have uncovered unique insights into athletic identity differences for college athletes, but some topics conflict with others or have limitations regarding the generalizability to the college athlete population. Gender and social norms have often created a narrative about the role of men and women and athletic identity through a lens of masculinity and femininity (Dixon, Warner, & Bruening, 2008). Men reported higher levels of interest in competing with their teammates compared to women (Warner & Dixon, 2015). Female college athletes reported both reduced athletic identity and a greater focus on academics compared to males, suggesting a reduced relationship with athletic identity (Sturm, Feltz, & Gilson, 2011). Reduced athletic identity, coupled with greater focus on academics, has previously been connected with the lack of professional athletic career options for women (Coakley, 2004). Many of these studies were qualitative in nature or only investigated certain NCAA divisions. Further examination of athletic identity related to gender, especially those that are quantitative or including a sample size across all NCAA divisions, is warranted. To address this need, we have created the following hypothesis to test our findings:

*H<sub>3A</sub>: Male athletes will report higher athletic identity subscale scores than female athletes.*

When comparing athletic identity to racial demographics, previous scholars indicated African American college athletes reported heightened levels of athletic identity compared to others (Harrison, Sailes, Rotich, & Bimper, 2011). The application of these findings to college athletes is limited, as the population focused on football college athletes only, participants in a sport where scholars have previously reported concerns about the lack of dedication by college athletes toward academics in order to focus on football (Houston & Baber, 2017). Further investigation into this relationship is warranted. To examine this comparison, we have crafted the following hypothesis:

*H<sub>3B</sub>: African American athletes will report higher athletic identity subscale scores than athletes of other ethnicities/races.*

Lastly, athletes have also reported reduced athletic identity for each additional year after they start college (Lally & Kerr, 2005; Miller & Kerr, 2002). This reduction may be due to college athletes feeling pressure to raise their athletic identity in order to match their coach's expectations and outplay increased competing talent. These studies provide a robust methodological approach that avoids concerns of cross-sectional studies. That said, these studies have limited sample sizes and are becoming out-of-date compared to the current college athlete population, in addition to focusing on a case study group within just one NCAA division. Further investigation is needed. Therefore, this final hypothesis was established:

*H<sub>3C</sub>: First-year athletes will report higher athletic identity subscale scores than athletes who have spent longer in college.*

## Method

### Participants

Participants were 546 athletes participating in varsity-level sports at NCAA institutions. The participants represented all three levels of the NCAA governance structure, with 217 athletes from Division I, 228 from Division II, and 101 from Division III institutions. Participants were recruited by contacting a cluster sample of NCAA institutional athletic department personnel to solicit their participation into the study and distribute the instrument to their college athletes. Institutions were clustered by their NCAA division designation and then randomized by assigning each NCAA institution a number and using a random number selection webpage to determine which schools would be contacted for the study. If athletic department personnel agreed to distribute the instrument to their college athletes, a second e-mail was sent with instructions and IRB-mandated materials to the corresponding athletic department personnel, who would then distribute the materials to their college athletes. A total of 17 institutions (seven Division I, seven Division II, and three Division III) provided confirmation to participate and distribute the survey, leading to 7,098 college athletes receiving the study, for a response rate of 7.7%. Participants consisted of more athletes from private ( $n = 343$ ) than public ( $n = 203$ ) institutions, more women ( $n = 385$ ) than men ( $n = 161$ ), and included the highest percentage of participants in their first year of college ( $n = 211$ ) and lowest in their fifth year in college ( $n = 19$ ). These demographic results are provided in Table 1. Although female athletes make up a smaller percentage of NCAA college athletes, our results included more responses from female athletes than male athletes (Lapchick, 2017). All sanctioned NCAA sports were represented within the study, with cross country (10.8%), softball (9.7%), and women's soccer (8.4%) the most frequently represented. The remaining demographics are consistent with the target population.

Table 1

*Demographic Characteristics of Participants (n = 546)*

Characteristic	<i>n</i>	%
Gender		
Male	161	30
Female	385	70
Race		
American Indian/Native Alaskan	2	<1
Black/African American	32	6
Asian	10	2
Hispanic/Latino/Latina	18	3
Native Hawaiian/Pacific Islander	3	<1
White/Caucasian	443	81
Multi-Racial	31	6
Other	7	1
Year in College		
First	211	39
Second	105	19
Third	119	2
Fourth	91	17
Fifth	19	4
NCAA Division		
Division I	217	40
Division II	228	42
Division III	101	19
Public/Private		
Public	203	37
Private	343	63

*Note.* Totals of percentages may not equal 100 due to rounding

### *Instruments*

To measure athletic identity, the researchers used the revised version of Brewer and Cornelius' (2001) Athlete Identity Measurement Scale (AIMS). AIMS was originally designed to assess "the strength and exclusivity of identification with the athlete role" (Brewer et al., 1993, p. 242). The original instrument included 10 items incorporating a 7-point Likert-type scale, ranging from 1 (strongly disagree) to 7 (strongly agree), summarized into a unidimensional construct. The more recent version of AIMS (Brewer & Cornelius, 2001) purified the total items from 10 to 7, but expanded to three unique dimensions. Previous studies have established that AIMS is a valid and reliable instrument (Brewer et al., 1993; Brewer & Cornelius, 2001). The



three constructs within AIMS included *social identity* (i.e., I consider myself an athlete), *exclusivity* (i.e., sport is the most important thing in my life), and *negative affectivity* (i.e., I feel bad about myself when I do poorly in sport). AIMS has been frequently used as a measurement tool in athletic identity studies (Ronkainen et al., 2016), but there are limited findings related to the constructs of AIMS, impeding the potential theoretical progression within the multi-construct structure of athletic identity.

### *Procedure and Analyses*

Since athletic departments often restrict access to college athletes by researchers, we first solicited athletic department personnel approval for their athletes to participate in the study. Following IRB approval from the first author's institution, we reached out to an athletic department staff member who worked in college athlete academic services. We chose to contact these staff members as our study was aimed at the academic experience of athletes. The likelihood was high they would possess a database of active college athletes as their office often needed to send mass messages to all athletes. The e-mail to the athletic department staff member included information about the study, a link to the survey, and our willingness to provide unidentifiable data back to the school following the conclusion of the study. If the staff member agreed to disburse the survey to the athletes, a second e-mail was sent to with instructions and a link to the survey. The survey link included language outlining the purpose of the study and required participation consent before being provided the survey. After one week, a reminder e-mail was then sent to the athletic department staff member, who would then disburse it again to their athletes. After a second week, the link for the survey was closed. This process complies with the recommendations for ethical web survey protocols (Dillman, Smyth, & Christian, 2008).

After all data were collected, we performed a series of statistical analyses to assess our study's research questions. For RQ<sub>1</sub>, a multiple regression analysis was performed to examine the relationship between AIMS subscale scores (*social identity*, *negative affectivity*, and *exclusivity*) (predictor) and GPA (criterion). For RQ<sub>2</sub>, we performed a multiple regression analysis regarding the relationship between AIMS subscale scores (predictor) and community service hours (criterion). For all three sub-sections of RQ<sub>3</sub>, an analyses of variance (ANOVA) was performed to compare AIMS subscale scores to gender, race, and year in school. The next section provides a review of those findings, followed by a discussion on theoretical implications.

## **Results**

First, we created a bi-variate correlations table to examine the relationship between the predictor (demographics and AIMS subscale scores) and criterion (GPA and community service hours). The results are provided in Table 2. The significant relationship between AIMS subscale scores was expected based on previous validity and reliability results (Brewer & Cornelius, 2001; Brewer et al., 1993). GPA was statistically correlated with two of the three AIMS subscale scores, as GPA was negatively correlated with *exclusivity* (-.179) and *negative affectivity* (-.142).

Table 2

*Intercorrelations for Athletic Identity Sub-Constructs and Educational Outcomes*

Measure	1	2	3	4	5	6	7	8
1. Social Identity	--							
2. Exclusivity	.434*	--						
3. Negative Affectivity	.307*	.522*	--					
4. Gender	-.060	-.080	.050	--				
5. Race	.016	-.027	-.034	.020	--			
6. Year of Eligibility	.019	-.013	-.017	-.006	.011	--		
7. GPA	-.061	-.179*	-.142*	.186	.167*	-.082	--	
8. Community Service	-.068	-.098*	-.061	-.019	-.041	.113	.118	--

Note. \* is significant at  $p < .01$ .

*RQ<sub>1</sub>: Athletic Identity and GPA*

For the first research question, we performed a multiple regression analysis to examine the relationship between AIMS subscale scores and GPA. Regression analysis results are provided in Table 3. Overall, our model was statistically significant ( $F = 6.659, p < .001$ ), but explained a low percentage of variance ( $R^2 = .036$ ). The relationships between GPA and *social identity* ( $\beta = .028, p = .557$ ), and GPA and *negative affectivity* ( $\beta = -.071, p = .158$ ) were not statistically significant. This means that an athlete's GPA was not correlated with his/her degree of *social identity* or *negative affectivity*. There was a statistically significant relationship between GPA and *exclusivity* ( $\beta = -.155, p < .01$ ), meaning a one standard deviation increase in the athlete's *exclusivity* scores correlated in a -.155 standard deviation decrease in his/her GPA.

Table 3

*Regression Analysis Summary for Athletic Identity Measurement Scale Sub-Constructs Predicting GPA*

Variable	<i>B</i>	<i>SE B</i>	<i>b</i>	<i>t</i>	<i>p</i>
Social Identity	.021	.036	.028	.588	.557
Exclusivity	-.073	.025	-.155	-2.931	<.01
Negative Affectivity	-.038	.027	-.071	-1.415	.158

Note.  $N = 546, p < .001$ .

*RQ<sub>2</sub>: Athletic Identity and Community Service*

We performed a multiple regression analysis to examine the relationship between athletic identity subscales and community service performed. The results are provided in Table 4. Overall, our model was not statistically significant ( $F = 1.899, p = .129$ ) and explained a low

percentage of variance ( $R^2 = .010$ ). Unlike RQ<sub>1</sub>, we did not find a statistically significant relationship between any of the AIMS subscales and community service (*social identity*:  $\beta = -.030$ ,  $p = .530$ , *exclusivity*:  $\beta = -.079$ ,  $p = .136$ , *negative affectivity*:  $\beta = -.010$ ,  $p = .841$ ).

Table 4

*Regression Analysis Summary for Athletic Identity Measurement Scale Sub-Constructs Predicting Community Service Hours*

Variable	<i>B</i>	<i>SE B</i>	<i>b</i>	<i>t</i>	<i>p</i>
Social Identity	-.924	1.470	-.030	-.629	.530
Exclusivity	-1.508	1.011	-.079	-1.492	.136
Negative Affectivity	-.219	1.090	-.010	-.201	.841

Note.  $N = 546$ ,  $p = .129$ .

*RQ<sub>3</sub>: Athletic Identity and Athlete Demographics*

Lastly, we performed exploratory examinations into the relationship between AIMS subscales and athlete demographic information (e.g., athlete gender, race/ethnicity, and year in college). Our ANOVA results are provided in Table 5. There were no statistically significant differences in AIMS subscale scores as a function of any demographic, running contrary to previously published studies in athletic identity (Lally & Kerr, 2005; Sturm et al., 2011).

Table 5

*Means, Standard Deviations, and One-Way Analysis of Variance for Athletic Identity Measurement Scale Sub-constructs*

Variable	Social Identity			Exclusivity			Negative Affectivity		
	<i>M</i>	<i>SD</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>p</i>
Gender			.163			.062			.246
Women	4.44	.62		2.89	.91		3.33	.82	
Men	4.52	.49		3.05	1.03		3.24	.86	
Race			.854			.320			.383
African American	4.41	.63		3.05	1.03		3.50	1.01	
All Others	4.47	.58		2.93	.94		3.29	.82	
Race			.716			.535			.428
Caucasian	4.47	.59		2.92	.95		3.29	.81	
All Others	4.44	.55		2.99	.96		3.36	.95	
Year in College			.173			.841			.994
Freshman	4.43	.62		2.98	.92		3.32	.83	

Sophomore	4.50	.52	2.87	.98	3.30	.83
Junior	4.54	.60	2.89	.91	3.29	.83
Senior	4.37	.58	2.95	1.03	3.27	.88
Redshirt Senior	4.61	.34	3.00	.87	3.32	.75

## Discussion

Student-athletes face daily challenges in balancing their student academic responsibilities and eligibility requirements in addition to their roles as athletes (Bimper, 2014; Chen et al., 2010). Moreover, as athletes transition from high school to college, many prioritize athletic participation over academics (Woodruff & Schallert, 2008). This prioritization may be due to professional sport aspirations or adjustments to the new time demands and expectations of competitive intercollegiate sport. Further, participation in college athletics may inhibit an athlete's career development, social development and connections, and academic aspirations (Ryba et al., 2017; Tyrance et al., 2013). Therefore, the purpose of this study was to examine the relationship between athletic identity dimensions (i.e., *social identity*, *exclusivity*, and *negative affectivity*) and the educational outcomes of GPA and participation in community service.

Results of this study revealed a significant relationship between the AIMS sub-domain of *exclusivity* and GPA. Specifically, the more exclusive the athlete perceived the sport to be in his/her life, the greater the likelihood the athlete's grade point average would suffer. Interestingly, however, high levels of athletic identity did not correlate with GPA. Unlike the findings related to *exclusivity*, *social identity* and *negative affectivity* were not statistically correlated with GPA. These results provide some interesting insight into the relationship between athletic identity and academic performance. This result may mean that when college athletes receive negative reinforcement from their sport identity (e.g., poor performance, negative feedback received from teammate or coach), they do not "double down" on their athletic activity but rather maintain their current balance between academics and athletics. Previous scholars have highlighted how significant physical injuries (Petrie et al., 2014) and sudden retirement (Douglas & Carless, 2009) can create a transitional phase of reduced athletic identity for college athletes. These studies highlight a more significant transitional phase for an athlete than the current study. The findings in this study could be a microcosm of these more significant transitions, with the lack of correlation between *negative affectivity* and GPA being unique in that athletes do not further prioritize athletics as a means of magnifying their athletic commitment.

The lack of statistical correlation between social identity and GPA was also an interesting finding. College athletes who strongly associate their *social identity* with being a college athlete did not have significantly different academic performance compared to those who did not. *Social identity* often speaks to how they portray that identity within interactions with others (Brewer & Cornelius, 2001; Brewer et al., 1993). This lack of significance could be related to earlier research on college athlete stereotypes (Parsons, 2013; Winger & White, 2015). Student peers and faculty stereotypes defined college athletes as lazy or only attending college to continue their playing career. This study's lack of statistical significance regarding *social identity* could be associated with some athletes attempting to fight these stereotypes and/or finding a healthy balance between academics and sport. Both the non-significant findings related to *negative affectivity* and *social identity* warrant further research to examine these potential associations.

A consistent finding within this study was the lack of statistical relationship between community service and each athletic identity dimension. This lack of statistical correlation may be due to athletes participating in community service activities with their coaches and teammates. Therefore, the college athlete may not discern the service activity as academically related. Instead, the activity becomes associated as an obligation or expectation for their sport participation. For example, nearly 60% of student-athletes report being required to participate in community service as a member of their athletic team (NCAA, 2016). College athletes frequently performing community with their coaching staff or teammates may lead the athletes to view the activity as more athlete-related than academic-related. This belief could potentially imply that an increase in athletic identity would lead to increased community service. The lack of any finding of statistical significance in this study casts greater doubt over the involvement of community service within the athletic department environment and athletic identity of college athletes.

Finally, AIMS subconstruct scores were also not significantly related to gender, race, or year in college. This finding is in opposition to previous research on athletic identity (Harrison et al., 2011; Warner & Dixon, 2015). As mentioned previously, these earlier findings were limited and involved smaller populations. For example, Harrison et al. (2011) found that NCAA Division I African American football players had stronger athletic identity than their Caucasian counterparts. These studies also found African American athletes were more likely to see sport as the priority in their lives and that other people were likely to see them only as athletes rather than considering the athletes' other social identities. In the present study, however, there was no difference between racial minorities and white student-athletes in overall AIMS scores or subconstruct scores. In terms of gender and year in college, studies exploring student-athletes suggest that male athletes, historically, may lose interest in academics over time in college whereas female athletes become more focused on their studies (Adler & Adler, 1985). More recent studies suggest female college athletes have lower levels of athletic identity when compared to male college athletes (Sturm et al., 2011). Lower levels of athletic identity, coupled with greater focus on academics, has previously been connected with the lack of professional athletic career options for women (Coakley, 2004).

The present study, however, showed no difference in overall athletic identity scores or subscale scores based on gender. It is feasible that no difference exists as women may now also perceive professional sport opportunities that were previously only available to men. However, it should be noted that the number one reason for athletes across all NCAA divisions for selecting their respective schools was based on the ability to participate in athletics (NCAA, 2016). Academics was the second choice factor. This supports the finding that athletic identity differences between men and women might not exist because they are choosing to attend college for the same reason – athletics.

## Conclusion

This study examined the relationship between athletic identity constructs (i.e., *social identity*, *exclusivity*, and *negative affectivity*) as measured by the AIMS and the educational outcomes of grade point average and participation in community service. Unlike previous scholarship that created a link between athletic identity and GPA, our study identified a more nuanced relationship between the concepts, with the perception of *exclusivity*, a subconstruct within athletic identity, as the main factor for this correlation. Results also showed that athletes

with increased levels of athletic identity are not less likely to perform certain types of educational opportunities outside the classroom, such as community service. Lastly, results from our study stand in contrast with previous studies that outlined athletic identity differences based on participant demographics, finding that athletic identity subconstruct scores were not statistically different based on the participant's gender, race, or year. These demographic findings may shed light on contemporary changes within college athletics, such as more professional sport opportunities for women than previously.

While this study provides unique insights into the interactions between athletic identity and academic performance and community service, future research is still necessary. With college athletes performing community service in athletic and academic settings, further examinations into their perceptions of the activity would be valuable. It might be possible to further delineate the experiences of college athletes performing community service through a qualitative inquiry that cannot be achieved through quantitative approaches. This insight would provide value to the college athlete educational experiences. Going beyond athletic identity differences and examining intervention techniques that could quell many negative associations related to athletic identity would help both researchers and practitioners looking to help athletes find better balance and/or transition out of athletics upon the end of their sporting career.

The findings from this study come with limitations. The study findings do conflict with previous scholars examining athletic identity differences compared to participant demographics. Given these mixed results, further inquiry is necessary to further flesh out the relationship between variables. This study employed a cross-sectional approach, limiting its application to the general population. A more robust approach, such as a longitudinal approach, would be welcomed. This study also only collected data from NCAA athletes, limiting the application of these findings to professional, semi-professional, and interscholastic populations. The reported demographics of this study were not consistent with all demographics reported for NCAA college athletes (Lapchick, 2017). These inconsistencies limit the findings of this study to future studies examining athletic identity pertaining to race and year in college. Lastly, since the researchers were required to work with the athletic department personnel at each willing institution to send out the survey, athletes may have felt pressure to complete the survey since it was coming from their athletic department.

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