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Am I a Student or an Athlete?

An Examination of Motivation and Identity in DIII Student-Athletes

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The current study aimed to better understand the athletic and academic identities and motivations of DIII student-athletes. We used a convergent parallel mixed methods design to explore student-athlete identity, motivation, and success in academics and athletics. Quantitative data were collected using the Academic and Athletic Identity Scale (AAIS) and the Student-Athlete's Motivation toward Sports and Academic Questionnaire (SAMSAQ), and qualitative data were collected using open-ended survey questions. Quantitative results demonstrated links between motivation and identity constructs in both academic and athletic domains as well as a need to reconsider how student-athlete motivation is measured in a DIII environment. Qualitative data gave insight into student-athlete perceptions of motivation and identity in both domains.

Keywords: student-athlete motivation, student-athlete identity, DIII student-athlete

For decades, research has focused on the negative outcomes associated with college athletics. Some critics argue that these negative outcomes can be attributed to the challenges and unique experiences that student-athletes face balancing dual roles of student and athlete during their college career (e.g., Jayakumar & Comeaux, 2016; MacNamara & Collins, 2010; Parham, 1993; Rubin & Moses, 2017; Sedlacek & Adams-Gaston, 1992). Studies show, however, that this unique set of experiences is not necessarily consistent across different populations of student-athletes (Aries et al., 2004; Gayles & Hu, 2009; Rettig & Hu, 2016; Robst & Keil, 2000). Findings suggest that while Division I (DI) student-athletes may have lower incoming academic abilities, grade point averages (GPA), and graduation rates than their non-athlete peers (e.g., Adler & Adler, 1985; Maloney & McCormick, 1993; Shulman & Bowen, 2001), studies on DIII student-athletes show considerably more positive results (e.g., Aries et al., 2004; Robst & Keil, 2000). For example, Richards and Aries (1999) found that DIII student-athlete academic performance was not significantly different than non-athletes, while Robst and Keil (2000) found that once SAT scores and high school rank were controlled for, non-transfer DIII student-athletes had significantly higher GPAs than non-athletes. Robst and Keil (2000) also found that student-athletes took more credits and a harder course load per academic year and had higher graduation rates than non-athletes. Additionally, Aries and colleagues (2004) found that while student-athletes had lower entering credentials and academic self-assessments than non-athletes, their academic performance was not lower than expected based on their entering profiles. Recent findings have also demonstrated that DIII athletes reported higher levels of satisfaction with their athletic experience than DI athletes (Paule-Koba & Farr, 2013).

These findings leave researchers and professionals with important questions regarding the reasons why athletes at DIII institutions seem to perform better academically than those at DI institutions, what factors contribute to their academic success, and the ways in which their experiences differ from other student-athlete populations. According to the NCAA, academics are the primary focus for DIII student-athletes. The goal of the division is to minimize the conflicts between athletics and academics and help student-athletes progress towards graduation by implementing shorter practice and playing seasons in order to reduce time away from academic studies. Specifically, the DIII philosophy statement reads,

> Colleges and universities in Division III place the highest priority on the overall quality of the educational experience and on the successful completion of all students' academic programs. They seek to establish and maintain an environment in which a student-athlete's athletics activities are conducted as an integral part of the student-athlete's educational experience, and an environment that values cultural diversity and gender equity among their student-athletes and athletics staff. (NCAA.org)

The NCAA further describes DIII athletics,

> Academics are the primary focus for Division III student-athletes. The division minimizes the conflicts between athletics and academics and helps student-athletes progress toward graduation through shorter practice and playing seasons and regional competition that reduces time away from academic studies. Participants are integrated on

> campus and treated like all other members of the student body, keeping them focused on being a student first. (NCAA.org)

Four hundred fifty institutions are members of DIII, making the 180,000 student-athletes that attend these institutions the largest group of student-athletes in the NCAA (NCAA.org). With 39% of student-athletes competing at the DIII level (Irnik, 2016), findings from these institutions could serve as an important addition to the research surrounding the student-athlete experience and academic success. However, very few studies have explored the academic performance of DIII student-athletes specifically (e.g., Aries et al., 2004; Robst & Keil, 2000), and the research that has primarily uses small samples of one to two schools with a relatively small group of student-athletes from each school. Importantly, there is also a lack of recent research focusing specifically on the academic performance of DIII student-athletes. Considering the fact that DIII schools comprise 42% of NCAA school membership, the largest division of NCAA student-athletes, these previous studies may have only scratched the surface in representing this population. Therefore, the current study explores athletic and academic identity and motivation and their relationship to academic success in DIII student-athletes.

Review of Literature

According to current research, noncognitive variables are important for understanding and predicting student-athlete academic performance (e.g., Allen et al., 2009; Sedlacek, 2017). Non-cognitive variables are defined as "nontraditional predictors that represent behavioral, attitudinal, and personality constructs, primarily derived from psychological theories" (Allen et al., 2009, p.2). Sedlacek (2017) discussed how the term "noncognitive" has been "used to describe many different attributes, including personal and social dimensions, adjustment, motivation and student perceptions, rather than the traditional verbal and quantitative areas typically measured by standardized tests" (p. 27). Specifically, research has demonstrated that motivation and identity are important to many aspects of student-athletes' college experiences, including academic performance (e.g., Gaston-Gayles, 2004; Ryska, 2002). However, a majority of this research has focused on DI student-athletes (e.g., Gaston-Gayles, 2004; Parker et al., 2016; Yukhymenko-Lescroart, 2014) who make up only 37% of the total student-athlete population (Irnik, 2016). Therefore, it is important to extend this research to a DIII environment to understand the potential factors that influence academic achievement in this population. As such, the current research investigates the complex relationships between identity and motivation for DIII student-athletes and to what extent they influence academic outcomes.

Athletic Identity

Athletic identity is defined as the degree to which an individual identifies with the athlete role (Brewer et al., 1993). It is described in its narrowest sense as a cognitive structure, and in its broadest sense as a social role (Brewer et al., 1993). Research has demonstrated that high levels of athletic identity are linked to positive athletic performance (Horton & Mack, 2000), less focus placed on academics and lower academic adjustment during college years (Brown et al., 2000; Lally & Kerr, 2005; Melendez, 2009; Ryska, 2002), delayed skill acquisition related to career development (Grove et al., 1997), and difficulty transitioning out of sport participation (Alfermann et al., 2004). One study in particular showed that athletic identity was negatively

related to student identity, and that student identity only became prominent as athletic identity waned over time (Lally & Kerr, 2005), and another demonstrated similar findings, showing that as one identity increases on a certain task, the other decreases (Yopyk & Prentice, 2005).

However, not all findings have shown negative relationships between athletic identity and academics. For example, Harrison and colleagues (2009) showed that athletic identity actually led to increased performance on an academic task, postulating that the athlete role in this circumstance served as a positive stereotype increasing confidence. Additionally, Harrison and Lawrence (2003), found that although high athletic identity resulted in some difficulties adjusting to the workplace after college, student-athletes acknowledged the importance of succeeding in both athletics and academics to their overall sense of satisfaction, and Brown and colleagues (2000) surmised that as long as student-athletes were not overcommitted to the athlete role, that it was possible to have a high student identity as well as a high athletic identity.

In the last decade, research on student-athlete identity has begun to explore differences among various groups of student-athletes (Beron & Piquero, 2016; Sturm et al., 2011). Findings from studies with DI student-athletes suggest that athletic identity exists more strongly than student or academic identity (Adler & Adler, 1985; Marx et al., 2008). However, results have been inconsistent across gender, graduation year, and level of competition (Beron & Piquero, 2016; Coakley, 2009; Meyer, 1990; Mignano et al., 2006). Although a majority of the research has focused on DI student-athletes, a few have also included DIII student-athletes. For example, in a study comparing the experiences of DI and DIII student-athletes, Strum and colleagues (2011) found that the DI environment does not promote athletic identity any more than the DIII environment. Similarly, Beron and Piquero (2016) investigated athletic identity in DI, DII, and DIII student-athletes and found no significant differences in athletic or student identity among the divisions, and Williams and colleagues. (2010) found that DIII athletes demonstrated high levels of athletic identity consistent with other divisions. Feltz and colleagues (2013) also found a negative correlation between the two identities across DI and DIII sports. However, this same study found that upon separating the DI from the DIII schools, only the DI schools had a significant relationship.

On the other hand, another recent study (Rankin et al., 2011) found that athletic identity is higher in DI than in DIII student-athletes, and academic identity is higher in DIII than DI student-athletes. Huml (2018) also found that while DI and DII college athletes had similar athletic identities, DIII college athletes had significantly lower scores. These findings are consistent with the NCAA definitions and philosophies of DI versus DIII environments, with DIII focusing more on the academic and holistic experience of the student-athlete. While consistent with earlier findings regarding differences in DI and DIII institutions (e.g., Richards & Aries, 1999; Robst & Keil, 2000), these findings conflict with other research on athletic identity in DIII student-athletes (e.g. Beron & Piquero, 2016; Feltz et al., 2013; Strum et al., 2011; Williams et al., 2010), demonstrating the need for further investigation. Considering the academic, adjustment, and career implications of athletic identity, a better understanding of athletic identity among DIII student-athletes is necessary to effectively support healthy, balanced identity development and academic and career success (Brewer & Pepitas, 2017; Houle & Kluck, 2015).

Academic Identity

Compared to the available literature on athletic identity, a limited amount of research has examined academic, or student, identity in college student-athletes. Academic identity is defined as the degree to which an individual identifies with the student role and has been found to be connected to positive outcomes such as goal commitment, commitment to one's institution, and persistence in academics (Bowman & Felix, 2017). With regard to student-athletes, Strum and colleagues (2011) compared athlete and student identity in DI and DIII student-athletes and found a negative correlation between athlete identity and student identity. Lally and Kerr (2005) and Yopyk and Prentice (2005) also demonstrated negative relationships between the two constructs. Additionally, Pot and colleagues (2014) found that athletic identity increased and academic identity decreased in 10-12-year-olds after participating in a sport program. However, the difference in student identity was not found to be significant for girls, and boys experienced a decrease in student identity over the school year whether they participated in a sport program or not. Several other studies have indicated that being an athlete has a negative effect on academics (e.g., Adler & Adler, 1991; Miller & Kerr, 2002).

Other research has demonstrated a more positive relationship between athletic identity and academic identity. As discussed in the previous section, Harrison and colleagues (2009) found that strong athletic identity could lead to increased academic performance, while Brown and colleagues (2000) discussed how it was possible to have high identity in both athletics and academics as long as there was not an overcommitment to athletic identity. Overall, the scarcity of studies specifically assessing these constructs together and the conflicting findings regarding their negative relationship to one another demonstrates a need for further investigation.

Achievement Motivation

Achievement motivation is defined as "motivation in situations in which individuals' competence is at issue" (Wigfield & Eccles, 2000, p. 1), and recent literature has demonstrated that it is a critical factor in student-athlete academic success (Parker et al., 2016). Since student-athletes fulfill a dual role as both student and athlete, it is important to consider their motivation in both academic and athletic domains. For example, Simons and Van Rheenen's (2000) study on the athletic-academic relationship and achievement motivation of DI student-athletes revealed that one of the central problems facing student-athletes at academically elite institutions is finding a balance between academic and athletic demands, and results from Jayakumar and Comeaux (2016) draw similar conclusions. Additionally, Gaston-Gayles (2005) explored the relationship between academic and athletic motivation and academic achievement with DI athletes. Results indicated that both athletic and academic motivation were influential in predicting academic performance. Simons and colleagues (1999) found that when student-athletes are more motivated by athletics, they generally make lower grades than those who are motivated to succeed academically. In testing for differences between subgroups, the authors found that males and females and non-revenue and revenue athletes were significantly different on measures of motivational orientation types.

Additional studies focusing on student-athlete academic and athletic motivation have found differing results regarding the effect of the two constructs on academic performance. For example, Ryska and Vestal (2004) found that high school student-athletes who were motivated in their sport were able to carry over that motivation into the academic realm. Student-athletes who

had higher athletic motivation spent a greater amount of time and energy on academic preparation, utilizing information processing, time management, personal effort, task persistence, self-testing and skill improvements. Findings from this study supported others who have argued that discipline gained from collegiate athletic competition can be transferred to the academic realm (Hollembeak & Ambrose, 2005). However, other research suggests a negative relationship between academic and athletic motivation (Adler & Adler, 1985; Lucas & Lovaglai, 2002). For example, Lucas and Lovaglai (2002) found that students with high athletic motivation had low motivation on academic tasks. The study focused on comparing non-athletes and athletes at a large, DI institution, and researchers suggested that findings may be different in countries other than the United States where athletics are treated differently.

Although these findings suggest the influential role motivation can play in the academic success of many DI student-athletes, less is known about the experiences and motivations of DIII student athletes. In one study that included DIII athletes, Snyder (1996) assessed the levels of expressed academic motivation among black and white student-athletes at both DI and DIII institutions and found that black students at DI universities were more motivated to play professional sports than white students; however, no significant differences were found at the DIII level. However, this study did not provide insight into how motivation affects academic performance. Considering the differences in academic performance, athletic identity, and academic identity found between DI and DIII student-athletes across a variety of studies (e.g., Aries et al., 2004; Huml, 2018; Rankin et al., 2011; Snyder, 1996), it is possible that important motivational differences may also exist. Therefore, an investigation into both the academic and athletic motivations of DIII student-athletes, similar to previous research on DI student-athletes, may provide important insight into achievement motivation and how it may differ within this population.

Conceptual Model

Expectancy-value theory provided a useful framework from which to understand motivation in the current study. The theory posits that individuals' choice, persistence, and performance can be explained by their beliefs about how well they will do on an activity and the extent to which they value the activity (Wigfield & Eccles, 2000). The model assumes that activity choices are made in the context of a variety of different choices and these choices are assumed to be guided by one's expectations for success at the various different options. These expectancies are related to core values (e.g. achievement needs, competency needs, personal goals, motivational orientation, and gender-role schemata) by utilitarian values (e.g. the importance of participating in various activities for future goals), and potential costs (e.g. investing time in one activity over another) (Eccles, 1983). Given the dual role student-athletes fulfil, factors impacting academic success may be understood in terms of activity choices, persistence and performance in either role.

Identity theories are also used to make sense of student-athlete self-perceptions. Some of the important literature related to student-athlete motivation considers identity constructs in addition to motivational constructs. For example, both Simons' (1999; 2000) studies use self-worth theory to discuss motivation, while Simons and Van Rheenen (2000) specifically discuss the importance of academic identity to motivation. This aligns well with the previous discussion on expectancy-value theory. According to the theory, tasks are important or of value if individuals view them as central to their own sense of selves (Wigfield & Eccles, 2000). Thus, a

student-athlete will place high value on athletic and academic tasks based on whether he or she has a strong sense of athletic or academic identity. Therefore, the combination of motivation and identity constructs has the potential to provide important insight into the dual nature of the student-athlete experience. This combination also allows for an investigation of the relationships between the two constructs, specifically how they interact to influence the academic outcomes of student-athletes in a DIII environment.

Methodology

In order to explore both motivation and identity constructs within the DIII student-athlete population, we addressed the following research questions. Since student-athletes balance dual roles, it was important for us to consider athletic and academic constructs separately:

RQ 1: What are the relationships among academic identity, athletic identity, academic motivation, and athletic motivation for DIII student-athletes?

RQ 2: To what extent do athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes?

RQ 3: What are student-athletes' perceptions of their academic and athletic identities and motivations at DIII institutions?

RQ 4: To what extent do identity and motivation scores converge with student-athletes' perceptions of their identity and motivation?

Convergent Mixed Methods Design

The current study employed a parallel convergent mixed methods design (Creswell & Plano Clark, 2011). The purpose of the convergent design is "to obtain different but complementary data on the same topic" (Morse, 1991, p. 122). In using this design, the researchers keep the quantitative and qualitative strands separate during the analysis phase and then converge them during the interpretation phase. Using this approach allowed us to deeply explore the complex relationships among identity, motivation, and success in student-athletes' dual roles at their respective colleges or universities.

Data Source. The sample was obtained from 11 institutions belonging to the same DIII athletic conference in the Mid-Atlantic United States. Participants were identified and recruited using a non-probability convenience sampling procedure. Non-probability convenience sampling is based on a population that meets certain criteria and the accessibility for the researcher (McMillan, 2015). The institutions that were invited to participate were selected based on established relationships with athletic directors and coaches who could assist with data collection. Overall, a total of 11 schools participated in the study, though the participation level at each school varied significantly with the largest school population making up 31.8% of the participants (n = 114), and the smallest school population making up only .8% of the total participants (n = 3). 21 sports were represented in the study population, with baseball making up the largest portion of the study population (14.2%, n = 51), and men's track and field making up

the smallest portion (.6%, *n* = 2). The study sample consisted of slightly more females (57.5%, *n* = 206) than males (42.5%, *n* = 155), and all class levels were represented in the study, with the highest participation level in the freshmen class (34.6%, *n* = 124), and the lowest participation in the senior class (17.3%, *n* = 63).

Data Collection Procedures. We administered a web-based survey tool that included the Academic and Athletic Identity Scale (AAIS; Yukhymenko-Lescroart, 2014), the Student-Athlete's Motivation toward Sports and Academic Questionnaire (SAMSAQ; Gaston-Gayles, 2005), demographic questions, and open-ended qualitative questions. The survey took approximately 15 to 20 minutes to complete. We initially approached athletic directors to get approval to survey the student-athletes at their respective institutions. Each of the 11 athletic directors that gave approval to survey recommended one of three methods to reach the student-athletes. Two schools sent out the survey through the athletic director, seven schools had the coaches disperse the survey to their teams, and two schools provided email addresses to the researchers to directly email the student-athletes. A total of 361 participants completed the online survey.

Measures. The current study included the AAIS to measure athletic and academic identity and the SAMSAQ to measure athletic and academic motivation. Neither scale had been validated in a DIII population, so it was important to test psychometric properties of the scales in addition to testing for the research questions.

The AAIS consists of 11 items designed to measure the degree of centrality to student-athletes' self-identification as students and athletes. Yukhymenko-Lescroart (2014) provided evidence for a two-factor, 11-item model as an acceptable fit and found that all item loadings in the model were statistically significant ranging from .76 to .92 for academic identity and from .82 to .91 for athletic identity. Furthermore, Knott (2016) found that the overall reliability of the AAIS was .89 in their study dealing with DI athletes. Responses to scale items are made on a 6-point Likert-type scale ranging from *not central to my sense of self* to *very central to my sense of self* with higher scores representing something that is considered more central to one's self. Five of the items are concerned with academic identity, while six of the items focused on athletic identity. A summation of the six athletic identity items on the AAIS provided the athletic identity score, and a summation of the five academic identity items on the AAIS provided the academic identity score.

The SAMSAQ includes 30 items designed to measure student-athletes' athletic, academic, and career athletic motivations. Each of the subscales included in the instrument developed by Gaston-Gayles (2004) have well-established psychometric properties including Cronbach's α = .86, .79, and .84 for each subscale, respectively. These psychometric properties were supported by Willis (2005) who examined female DI student-athletes and found Cronbach's α = .84 (academic motivation), .63 (student-athletic motivation), and .84 (career athletic motivation). The current study only used the 16 items from the academic motivation subscale and the 8 items that measure athletic motivation. The career athletic motivation scale was not used as it does not measure a construct of interest in this study. Student-athletes' overall academic and athletic motivation scores were obtained by computing mean values for each item on the subscales. Higher mean values indicated higher academic and athletic motivation.

Quantitative Analysis. In order to answer the quantitative research questions, several steps were taken to analyze the survey data. First, the assumptions of normality were tested using descriptive statistics as these allowed the authors to determine the presence of outliers, skewness, or extreme scores. Next, factor analyses were used to test the psychometric properties of the scales used in the study. While the SAMSAQ scale had been validated in multiple populations, it had not been used in the DIII population. Similarly, the AAIS is a relatively new scale that had not been validated in a DIII population. Therefore, confirmatory factor analyses (CFA) were used to check the factor loadings of these scales in the current sample.

Following the preliminary analyses, the authors then used bivariate correlations to examine the relationships among the key variables in the study and hierarchical linear regression to determine predictors of academic performance. Hierarchical linear regression is a series of linear regression analyses that are run to determine the extent to which the predictor variable accounts for differences in the dependent variable (Lindenberger & Pötter, 1998). In this study, hierarchical linear regression allowed us to determine if the SAMSAQ motivation subscores and the AAIS subscores are significant predictors of academic performance, as measured by self-reported cumulative GPA. As hierarchical linear regression can help explain the effects of the predictor variables measured at different levels (Todd et al., 2005), background and demographic characteristics including sport played, gender, and school year, were entered into the first block of the regression, and motivation and identity subscores were entered into the second block. Hierarchical regression analyses allowed us to determine the variance of the scale subscores on academic performance, beyond the variance accounted for by the background and demographic variables alone.

Qualitative Questions. Data for the qualitative portion of the study were collected alongside the quantitative data in the same online survey that included the AAIS, SAMSAQ, demographic, and seven open-ended questions. The questions included in the qualitative portion were intended to provide further insight into student-athletes' identity and motivation scores. For example, the measures are designed to indicate the strength of athletic or academic motivation or identity, but would not be able to determine why a student-athlete might feel motivated in one area over another. Therefore, qualitative questions were included alongside scale items in order to allow student-athletes to elaborate on why they responded to questions a certain way. See Appendix for full list of qualitative questions.

Qualitative Analysis. Once the surveys were completed and responses were compiled into an online database, the qualitative answers were imported into the qualitative program, ATLAS.ti, used for storing, coding and analyzing data. Open-coding procedures (Strauss & Corbin, 1998) were used to analyze the qualitative open-ended student responses and answer research questions. Specifically, student responses were segmented into discrete categories. Categories were sorted, compared, and contrasted until no new categories emerged. Finally, categories were collapsed into central themes. Once patterns began to form within the qualitative data, our final step was to move to the mixed methods analysis.

Mixed Methods Analysis. This study utilized mixed methods to obtain a richer understanding of DIII college athlete identities and motivations in academics and athletics. Following quantitative and qualitative data collection and separate analyses, results from both phases were analyzed in a side-by-side comparison.

Findings

The purpose of this study is to understand DIII student-athletes' athletic and academic motivations and identities. The participants in this study were surveyed about their experiences and then asked to share their perspectives about different identities and motivations as both a student and an athlete. Quantitative, qualitative, and mixed methods analyses were used to analyze the data and answer four specific research questions. Results demonstrate positive and negative correlations among study variables, the study variables that predict GPA, and how student-athletes describe their identities and motivations for athletics and academics. Results also highlight areas of consideration for measuring motivation in DIII student-athletes.

In order to check for normality of the data, the Shapiro-Wilk test of normality in conjunction with Q-Q plots with kurtosis and skew statistics were evaluated. The Shapiro-Wilk test for each subscale was significant, indicating that the data deviates from normal distribution. More so, all values had z-scores for both skewness and kurtosis higher than + or – 1.96, indicating deviation from the normal distribution. All four of the variables were found to be skewed right with a positive kurtosis. Multicollinearity was not found for any of the variables, as the *r* coefficients were below the maximum recommendation of .90 (Kline, 2011).

Confirmatory Factor Analyses

In order to test the factor structure for the two instruments on student-athlete motivation and identity, CFA analyses were conducted. For student-athlete motivation, athletic motivation, and academic motivation factors were tested. For student-athlete identity, the factors of athletic and academic identity were tested. The model for the identity scale was found to be a reasonable fit, $c^2_{(42,\ 101.97)} = 2.43$, $p < .001$; RMSEA $_{(.048,\ .079)} = .063$; CFI = .96; TLI = .95; SRMR = .045. For academic identity, the item loadings ranged from .74 to .95, and for athletic identity, they ranged from .52 to .86. Even though some of the item loadings are below the recommended value of .6, since the model is a reasonable fit, the item loadings can be accepted (Awang, 2012). All factor loadings and error variances can be found in Table 1.

The model fit for the student-athlete motivation scale was initially found not to be a reasonable fit $c^2_{(251,\ 398.885)} = 1.59$, $p < .001$; RMSEA $_{(.05,.07)} = .14$; CFI = .72; TLI = .69; SRMR = .096. The item loadings of the scale ranged from .012 to .698 for academic motivation and -.327 to .845 for athletic motivation. Since the model was found not to have an acceptable fit, the modifications indices were evaluated post-hoc. Modification indices in CFA can be used post-hoc but must be supported by theory and may capitalize on change (Ullman, 2001). The second CFA model conducted allowed the covariance errors of survey items M20 and M15 and survey items M5(R) and M24 to correlate. Upon looking closer at the model indices and wording of additional questions, the researcher also allowed the covariance errors of survey items M15 and M20(R) and survey items M20 and M15(R) to correlate. For the exact wording of the survey items, please refer to Table 2. Once the model allowed for these covariances, the model was found to be a better fit, $c^2_{(247,\ 350.806)} = 1.42$, $p < .001$; RMSEA $_{(.036,.060)} = .048$; CFI = .802; TLI = .779; SRMR = .097. However, the item loadings for academic motivation ranged from .000 to .729 and -.073 to .853 for athletic motivation. Factor loadings for each subscale are listed below.

Table 1
Factor Loadings and Error Variances for the Final CFA Models

	Factor Loadings			Error Variances		
	Std. Est	SE	*p*	Std. Est	SE	*p*
Academic Identity						
Identity 1	0.741	0.039	< .001	0.451	0.058	< .001
Identity 2	0.866	0.020	< .001	0.251	0.035	< .001
Identity 3	0.947	0.014	< .001	0.104	0.026	< .001
Identity 4	0.869	0.023	< .001	0.244	0.041	< .001
Identity 5	0.753	0.036	< .001	0.434	0.054	< .001
Athletic Identity						
Identity 6	0.863	0.031	< .001	0.255	0.053	< .001
Identity 7	0.924	0.016	< .001	0.145	0.029	< .001
Identity 8	0.546	0.049	< .001	0.702	0.053	< .001
Identity 9	0.520	0.052	< .001	0.730	0.054	< .001
Identity 10	0.746	0.027	< .001	0.444	. 0.041	< .001
Identity 11	0.776	0.028	< .001	0.398	0.043	< .001
Academic Motivation						
Motivation 1	0.591	0.053	< .001	0.651	0.062	< .001
Motivation 3	0.609	0.050	< .001	0.568	0.072	< .001
Motivation 4	0.729	0.043	< .001	0.629	0.061	< .001
Motivation 5(R)	0.366	0.060	< .001	0.866	0.044	< .001
Motivation 7	0.278	0.072	< .001	0.923	0.040	< .001
Motivation 8	0.269	0.075	< .001	0.928	0.040	< .001
Motivation 9(R)	0.428	0.091	< .001	0.817	0.078	< .001
Motivation 15	0.115	0.058	< .001	0.987	0.013	< .001
Motivation 16(R)	0.305	0.074	< .001	0.907	0.045	< .001
Motivation 17(R)	0.488	0.058	< .001	0.762	0.056	< .001
Motivation 18	0.539	0.058	< .001	0.710	0.062	< .001
Motivation 20(R)	0.000	0.071	< .001	1.000	0.000	< .001
Motivation 21(R)	0.235	0.067	< .001	0.945	0.031	< .001
Motivation 23	0.416	0.060	< .001	0.827	0.050	< .001
Motivation 24	0.414	0.065	< .001	0.828	0.054	< .001
Motivation 25(R)	0.487	0.057	< .001	0.762	0.056	< .001
Athletic Motivation						
Motivation 2	0.657	0.055	< .001	0.568	0.072	< .001
Motivation 10	0.479	0.076	< .001	0.770	0.073	< .001
Motivation 11	0.613	0.053	< .001	0.624	0.065	< .001
Motivation 12	0.711	0.043	< .001	0.494	0.061	< .001
Motivation 13	0.853	0.033	< .001	0.272	0.056	< .001
Motivation 15(R)	-0.073	0.061	< .001	0.995	0.009	< .001
Motivation 20	0.233	0.055	< .001	0.946	0.025	< .001
Motivation 22	0.834	0.031	< .001	0.304	0.053	< .001

To assess reliability, Cronbach alpha scores were computed for each subscale in the study. Overall, these scores were found to be acceptable. Individual reliability scores are presented below in Table 2.

Table 2
Descriptive Statistics and Reliability for Scale Factors

Factors	α	μ	s^2	*SD*
Student-Athlete Identity				
Academic identity	.924	25.32	17.59	4.19
1. Being a capable student		5.18	.728	.853
2. Being satisfied with y academic work		5.04	.978	.989
3. Doing well in school		5.19	.864	.930
4. Getting good grades		5.11	.822	.939
5. Having a high GPA		4.80	1.14	1.07
Athletic identity	.871	31.81	16.74	4.09
6. Being a capable athlete		5.31	.669	.800
7. Being a good athlete		5.28	.695	.834
8. Being athletic		5.33	.730	.855
9. Being proud to be an athlete		5.42	.844	.919
10. Being satisfied with my athletic achievement		5.22	.850	.922
11. Doing well during sport competitions		5.25	.833	.913
Student-Athlete Motivation				
Academic motivation	.786	4.90	.549	.740
M1. I am confident that I can achieve a high-grade point average this year (3.0 or above)		5.10	1.55	1.25
M3. It is important for me to learn what is taught in my courses		5.36	.628	.793
M4. I am willing to put in the time to earn excellent grades in my courses		5.16	.825	.908
M5(R). The most important reason why I am in school is to play my sport		4.06	2.36	1.54
M7. I will be able to use what is taught in my courses in different aspects of my life outside of school		4.99	1.00	1.00
M8. I chose (or will choose) my major because it is something I am interested in as a career.		5.52	.727	.852
M9(R). Earning a high-grade point average (3.0 or above) is not an important goal for me this year (Reversed)		5.34	1.55	1.24
M15. I get more satisfaction from earning an “A in a course toward my major than winning a game in my sport		3.80	2.13	1.46
M16(R). During the years I compete in my sport, completing a college degree is not a goal for me (Reversed)		5.83	.317	.563

M17(R). I have some doubt about my ability to earn high grades in some of my courses.		4.14	2.33	1.53
M18. I am confident that I can earn a college degree.		5.84	.287	.536
M20(R). I get more satisfaction from winning a game in my sport than from getting an "A" in a course toward my major.		3.78	1.89	1.37
M21(R). It is not important for me to perform better than other students in my courses.		4.03	2.24	1.50
M23. The content of most of my courses is interesting to me.		4.66	1.16	1.08
M24. The most important reason why I am in school is to earn a degree.		5.42	.827	.909
M25(R). The content of most of my courses is interesting to me		5.34	1.08	1.04
Athletic Motivation	.810	4.64	.549	.74
M2. Achieving a high level of performance in my sport is an important goal for me this year		5.35	.900	.949
M10. It is important to me to learn the skills and strategies taught by my coaches		5.19	.811	.901
M11. It is important for me to better than other athletes in my sport.		4.81	1.36	1.17
M12. The time I spend engaged in my sport is enjoyable to me.		5.04	1.15	1.07
M13. It is worth the effort to be an exceptional athlete in my sport.		5.25	.986	.993
M15(R). I get more satisfaction from earning an "A" in a course toward my major than winning a game in my sport. (Reversed)		3.20	2.13	1.46
M20. I get more satisfaction from winning a game in my sport than from getting an "A" in my course toward my major		3.22	1.89	1.37
M22. I am willing to put in the time to be outstanding in my sport.		5.09	1.00	1.00

Research Question One Findings

To answer the first research question, what are the relationships among academic identity, athletic identity, academic motivation, and athletic motivation for DIII student-athletes, Pearson's product-moment correlations were conducted to assess relationships among the four major variables in this study. Preliminary analyses showed the relationships to be linear. A strong positive correlation was found between academic motivation and academic identity and negative correlations were found between academic motivation and athletic motivation, athletic motivation and academic identity, and academic motivation and athletic identity. Additionally, a strong positive correlation was found between athletic motivation and athletic identity, and a

small positive correlation was found between academic identity and athletic identity. All correlations can be found in Table 3.

Table 3
Pearson's r Correlation Matrix

Variable	1	2	3	4
1. Academic Identity	-			
2. Athletic Identity	.251**	-		
3. Academic Motivation	.599**	-.110**	-	
4. Athletic Motivation	-.115*	.553**	-.390**	-

****** Correlation is significant at the .01 level (2-tailed).
*Correlation is significant at the .05 level (2-taled).

Research Question Two Findings

The second research question, to what extent does athletic motivation, academic motivation, athletic identity, or academic identity predict academic performance for DIII student-athletes, was answered using a hierarchical linear regression analysis. This allowed the researchers to determine if the SAMSAQ motivation subscores and the AAIS subscores were significant predictors of academic performance as measured by self-reported cumulative GPA. Prior to conducting a hierarchical multiple regression, the relevant assumptions of this statistical test were tested. The sample size, assumption of singularity, correlations, collinearity, and homoscedasticity were all shown to be satisfactory to conduct a hierarchical regression.

A two-stage hierarchical multiple regression was conducted with GPA as the dependent variable. Gender, sport, and graduation year were entered at stage one of the regression to control for differences in these areas. Identity and motivation variables were entered at stage two. Regression statistics are reported in Table 4.

Table 4
Hierarchical Multiple Regression Predicting GPA from Gender, Year, Sport, School and Identity and Motivation Variables

	GPA	
Result	Model 1	Model 2
R Squared	.167	.372
F	1.696	6.071
Adjusted R Squared	.068	.372
Adjusted F	1.696	38.955

The hierarchical multiple regression revealed that gender, sport, school, and graduation year contributed slightly to the regression model and accounted for 6.8% of the variation in GPA. Introducing identity and motivation variables to the model significantly explained an additional 30.4% of variation in GPA. Taken together, the variables accounted for 37.2% of the

variation in GPA, a medium effect size according to Cohen (1988). Individually, academic motivation and academic identity ($B = .240$, $p < .001$; $B = .044$, $p < .001$, respectively) led to increases in GPA, while athletic identity ($B = -.028$, $p < .001$) led to decreases in GPA.

Research Question Three Findings

Research question three asked "what are student-athletes' perceptions of their academic and athletic identities and motivations". In order to answer this question, we analyzed the open-ended qualitative responses. We focused our analysis on data-driven and theory-driven codes and used an axial coding method (Miles et al., 2014). As Creswell (2013) suggested, these codes were then pared down into several larger themes that encompassed the general meaning of the codes. The following themes provide further insight into the ways in which student-athletes perceive their academic and athletic motivations and identities.

Students Were Highly Motivated to Do Well in Both Academics and Athletics, Though for Different Reasons. Overall, 52% of the student-athletes in this study discussed how they are equally motivated in both academic and athletic roles, while 31% reported feeling more motivated in their classes than in their sport, and 17% were more motivated in athletics than academics.

Student-athletes who discussed being more motivated in their classes primarily discussed how their future success would be more impacted by their academics than athletics. For example, one student wrote, "I am a little more motivated with my classes and schoolwork because I want to leave college with a degree and many job opportunities as opposed to a career in soccer," while another explained, "I am more motivated to do well in my classes than my sport. I am an athletic person who loves to exercise in general and I love my sport so it is a nice extra activity. I know once I graduate, my competitive days of my sport are over but I still have my career so my degree is more important to me." A third student discussed the need to do well in classes in order to get into Medical School, "I'm motivated to do well in both, but I'm certainly more motivated to do well in my classes. Ultimately, I need to make good grades in order to go to Medical School, and thus my classes are the largest determinant between baseball and school. Nevertheless, I'm willing to put as much work as I can in baseball up until the point that it hurts my school work," and a fourth explained the importance of learning material, "As I got older I am more motivated to do well in school because I will not be an athlete forever and will have to rely on what I have learned in my major to be successful in life."

Those who discussed being more motivated in sports discussed how college was their last opportunity to play competitively, their passion and enjoyment for the sport, and accountability to their teams. For example, one senior wrote about his last season, "this year I am definitely more motivated to do well in my sport. The educational side of my resume and college career is basically complete because I am senior. As long as I do not fail out, that aspect will remain unchanged. However, this is the last year I get to compete at such a competitive level for the rest of my life so I am really focusing on that." Another wrote about feeling more passionate towards sports, "I am more motivated to do well in my sport than in my classes because I am extremely passionate about my sport and get and extreme sense of satisfaction when succeeding in my sport whereas my classes there is a wider range of what is considered successful," and a third discussed enjoying sports over classes, "I am more motivated to do well in my sport than my classes because I love it and enjoy it all the time when I only enjoy and love class part of the

time." A fourth student discussed the impact of a team on motivation, "I am more motivated to do well in my sport because I have more accountability that comes with the team activities. I am motivated to do well with my classes by myself and it is easier to keep motivation when it is a team keeping you going rather than just yourself."

Students who discussed being motivated in both academics and athletics often described feeling motivated for different reasons in either domain. For example, one student wrote, "I am motivated in school and in swimming but it's a different motivation. The school motivation is to get a degree. My sport is important because it pushes me but I think it is because of swimming I am able to do well in school. I am motivated to drop time in swimming," while another explained, "I am extremely motivated to do well in both my classes and my sport. I want to do well in my classes to be able to further my education and eventually work towards getting my Doctorate degree. I want to do well in my sport because it is something I have been working towards for many years and I want to end up being the best athlete that I can be." A third student explained, "I am motivated in each, but in different ways. I want to do well in my sport because I truly love it. I want to do well in my classes because I know I have to have a future career and I cannot unless I go to graduate school."

Overall, the most reported reasons student-athletes gave for being motivated in school had to do with knowing their academic performance would impact their future. Responses focused on wanting to get good grades, graduate and start a career. On the other hand, students reported being motivated in their sport for reasons such as knowing it is their last opportunity to compete at this level, being passionate about their sport, enjoying the time they spend playing their sport, and wanting to do well for their team.

Student and Athlete Roles Fulfilled Different Personal Values. In responding to questions regarding the extent to which they identified with either the student or athlete role, student-athletes overwhelmingly discussed identifying with both. 95% of student-athletes responded that their student, or academic, identity was important to how they saw themselves, and 90% explained that being an athlete was an important part of their identity. Many of these responses overlapped, as over 50% of student-athletes specifically discussed identifying with both the student and athlete role. Student-athlete responses indicated that while they generally identified strongly with both roles, each role fulfilled different personal values or supported different ideas they had about themselves.

In discussing their academic identity, student-athletes discussed things like academic success being a reflection of their work and personal characteristics, and academics being connected to their future success. For example, one student explained that student identity is "very" important, "it is a reflection of my hard work and effort and it is often a quick judgement factor so I want to put out my best work." A second student discussed how academics are "even more important than athletics" to her sense of self. She explained, "I've always been a higher achiever in class than athletics, so my academic success is a higher pressure because I already have so much expected of me by others and by myself. I want to put myself forward as thoughtful, intelligent, and knowledgeable." A third student described how academics are "important to me and more so than athletics. I have no desire to be a professional athlete, so my schoolwork will help me in my career later on."

When discussing their athletic identity, student-athletes highlighted the fact that many of them had been playing sports for most of their lives, the pride and confidence they felt due to their sport participation, and the personal characteristics they associated with being an athlete.

For example, one student wrote, “I have been an athlete my whole life, I've always identified as an athlete. If I weren't successful as an athlete, I would feel like a huge part of my identity is that of a failure,” while another explained, “my entire life has been sports so I pride myself on being successful as an athlete and being someone who gets significant playing time which I have been fortunate to have. Without sports I feel like there is not much to me.” A third student-athlete related athletic identity to personal development, “If it were not for my athletics, I would not have developed into the person I am today. In addition, being a successful athlete has raised my level of confidence and influenced me to strive for even greater achievements. Because so much of my development as a person has connected with my role of striving to be a successful athlete, I would say it is very important in the way I view myself,” and another discussed the specific characteristics associated with being an athlete, “It [being an athlete] is important to how I see myself because the characteristics of a successful athlete, such as dedicated and hardworking, are characteristics that I expect of myself and strive to be.”

Many student-athletes discussed the importance of both academic and athletic roles in their lives. Specifically, they discussed each as having equal or similar importance because they fulfill different goals or parts of their identities, for example, one student wrote, “Athletics have kept me in shape and help me keep a schedule with a balanced life, and academics will help me achieve goals later in life,” while another wrote, “ Sports are important because it is something I put a lot of effort into and is a reflection of me and my ability to be excellent…Academics are also very important because they are a reflection of your ability to learn and retain knowledge.” A third student explained that being an athlete “is vital to my self-esteem, self-confidence, motivation, health, etc.” and that “being a successful student will ultimately affect my future.” A fourth student wrote that, “being a successful athlete fulfills my competitive edge and allows me to be a part of a team working together towards a common goal, while being a successful student highly reflects how I view myself as a person. When I have a good work ethic and perform well in the classroom I feel accomplished.”

Overall, student-athletes overwhelmingly reported that both academics and athletics were important parts of their identity, though they often satisfied different ideas participants held about themselves. For example, when describing their student identity, student-athletes discussed their desire to appear intelligent or knowledgeable and the importance of their future success. When describing their athletic identity, student-athletes discussed how they had identified as an athlete for their whole lives, the pride and confidence they felt being part of their sport, and the desire to appear dedicated and hard-working. Students who discussed both roles being important to them described the athlete and student role fulfilling different goals or needs within their identities. For example, athletics allowed students to stay in shape, learn how to balance schedules, provided them with self-confidence and opportunities to be part of a team while academics reflected their knowledge, work ethic and commitment to their future goals.

Research Question Four Findings

Research question four asked, “to what extent do the identity and motivation scores converge with student-athletes’ perceptions of their identity and motivation?” In order to answer this research question, it was necessary to consider the quantitative and qualitative results together. Therefore, we first reviewed student-athlete identity and motivation scores from the AAIS and SAMSAQ. Student-athletes scored slightly higher in athletic identity (M = 31.81, SD = 4.09) and academic motivation (M = 4.90, SD = .740) than academic identity (M = 25.32, SD =

4.19) and athletic motivation (*M* = 4.64, *SD* = .740); however, overall scores were all high. These overall scores were consistent with the qualitative findings discussed previously with 52% of the student-athletes reporting that they were equally motivated in both academic and athletic roles, and over 50% specifically discussing the important of both domains to their identities. Additionally, 95% reported identifying with the student role and 90% with the athlete role when asked to discuss each domain separately.

Another important way in which to combine qualitative and quantitative data for the current study was to consider whether the qualitative responses aligned with the responses to individual items on the motivation and identity scales. This was particularly relevant for the motivation scale given the problems that arose when analyzing the quantitative data.

As previously discussed, the motivation scale was split into two subscales, one to measure student-athlete academic motivation (AM) and one to measure athletic motivation (SAM). Overall, mean scores for both the AM subscale (*M* = 4.90, *SD* = .740) and the SAM subscale (*M* = 4.64, *SD* = .740) were very high on a scale of 1-6. These scores were generally consistent with the qualitative results, with over 50% of student-athletes reporting that they felt highly motivated in both academics and athletics and almost 70% of student-athletes reporting they felt confident in their ability to succeed in sports and athletics. The specific mean scores for each item of the scale were considered in order to identify any areas of potential discrepancies. Table 2 in the quantitative section shows details of item means, variances and standard deviations.

Five items, all of which were included in the AM subscale, were found to be exceptionally high, with mean scores greater than 5.3 on a scale of 1-6, and were found to be highly skewed, with skewness values above 2. The specific items, means and skewness and kurtosis values are reported in Table 5. Two of these questions specifically referred to the student-athlete's intention or confidence in earning a degree, two others addressed the importance of grades and GPA, and the fifth also considered a future outcome in the form of a career. High mean scores and skewness and kurtosis statistics with each of these items indicate that most students rated these items as either a 5 or 6 on a scale of 1-6, meaning that they strongly agree with the statements (or disagree if the item is reverse coded).

Qualitative data gives further insight into these items, showing that over 95% of students reported that academics were important to them, over 70% of students specifically discussed the importance of grades, and over 80% of students reported feeling to some degree confident in their ability to succeed in academics. Additionally, 83% of students reported feeling motivated to do well in school, and 47% of students specifically discussed the importance of receiving a degree. These trends in the qualitative responses support the high scores for items regarding GPA, grades and earning a college degree. Finally, a total of 39% of students discussed the importance of a future job or career, supporting the high scores on the career item. Table 5 shows the items, item statistics and qualitative findings that align with the items.

Overall, mixed methods analyses revealed a potential need to examine the motivation scale and its effectiveness in a DIII population. Side-by-side quantitative and qualitative data illustrated the relationships between individual items with high mean scores and skewed results and qualitative summary data.

Table 5
Exceptionally High Items with Mean, Skewness and Kurtosis Values with Supporting Qualitative Data

Item	*Mean*	*Skewness*	*Kurtosis*	*Qualitative Alignment*
M8. I chose (or will choose) my major because it is something I am interested in as a career.	5.52	-2.095	4.761	39% of students discussed the importance of a job or career
M9(R) Earning a high grade point average (3.0 or above) is not an important goal for me this year.	5.34	-2.223	4.349	Over 70% of students discussed the importance of getting good grades
M25(R) It is not worth the effort to earn excellent grades in my courses	5.34	-2.009	4.329	Over 95% of students discussed the importance of academics
M16(R). During the years I compete in my sport, completing a college degree is not a goal for me (Reversed)	5.83	-4.182	20.507	Over 80% of students reported feeling to some degree confident in their ability to succeed in academics
M18. I am confident that I can earn a college degree.	5.84	-4.618	27.319	83% of students reported feeling motivated to do well in school 47% of students discussed the importance of receiving a degree

Discussion

The current study aimed to better understand DIII student-athletes' athletic and academic motivations and identities. While some of the pre-existing literature on student-athletes may be relevant to this population, it is clear that due to their unique circumstances, many of the assumptions we hold about student-athletes may need to be reconsidered in a DIII population. Unlike other divisions, DIII stresses the importance of prioritizing academics and supporting a holistic college experience. Therefore, the student-athletes competing at this level may have different identities, motives and experiences than their DI or DII counterparts. Specifically, the results of this study highlight a number of important areas for consideration: a reconsideration of the reported negative impacts of athletic identity and athletic motivation for DIII student-athletes, the personal goals or values each role fulfills within this population, and a re-evaluation of the SAMSAQ academic and athletic subscales for a DIII student-athlete population.

First, results regarding athletic identity within this population were found to differ in important ways from previous research on the construct. Although many previous empirical studies demonstrated the negative impact athletic identity had on either student identity or academic performance (e.g., Alfermann et al., 2004; Lally &. Kerr, 2005; Melendez, 2009;

Ryska, 2002; Yopyk & Prentice, 2005) the current study demonstrated a positive correlation between athletic identity and academic, or student, identity, indicating that in the current population, the two constructs are not in conflict with one another. This finding was particularly interesting given the contradictory empirical findings associated with these constructs. For example, this result contradicts Lally and Kerr's (2005) conclusion that athletic identity is negatively related to student identity, and only as athletic identity wanes over time does the student identity become prominent. Likewise, this result opposed Yopyk and Prentice's (2005) findings that as one identity increases given a certain task, the other decreases. Feltz and colleagues (2013) also found a negative correlation between the two identities across DI and DIII sports, though when the DI and DIII schools were separated, only the DI schools had a significant relationship. While Feltz and colleagues (2013) did not find a positive correlation between identities like the current study, their findings indicate the presence of a difference in the construct for these populations.

On the other hand, the positive correlation found between these two constructs confirm the arguments that it is possible to have high identities in both domains (Brown et al., 2000; Harrison & Lawrence, 2003). For example, Brown and colleagues (2000) argued that as long as student-athletes were not overcommitted to the athlete role, that it was possible to have a high student identity as well as a high athlete identity, while Harrison and Lawrence (2003) found that student-athletes acknowledged the importance of succeeding in both roles to their overall sense of satisfaction. Thus, the current findings support these studies, giving further empirical evidence to the positive relationships between athletic identity and academic identity in a DIII population. This relationship was confirmed by qualitative data indicating that student-athletes identified strongly with both the athlete and student role and felt highly motivated to succeed in both domains. Furthermore, this finding is important in light of the research on athletic identity indicating that student-athletes who over-identify with the athlete role have low student identity and low academic performance (Marx et al., 2008; Strum et al., 2011). Based on these findings, it may be concluded that the population for the current study does not over identify with the athlete role in a problematic way as the DI athlete literature demonstrates.

Previous empirical work demonstrated that academic motivation and identity positively predicted GPA, while athletic motivation and identity negatively predicted GPA (e.g., Gaston-Gayles, 2004; Lally & Kerr, 2005), Similarly, the current study demonstrated that academic motivation and academic identity were strong positive predictors of GPA. However, while athletic identity negatively predicted GPA, athletic motivation was not found to negatively predict GPA. These findings are important as they oppose much of the previous literature that indicates the significant negative relationships between athletic motivation and other domains such as academic motivation and academic performance (e.g., Adler & Adler, 1985; Lucas & Lovaglai, 2002; Simmons at al., 1999). Importantly, these findings may align with literature that has demonstrated the possibilities of motivation or other skills from the athletic realm being carried over into the academic realm (e.g., Eccles, 2004; Hollembeak & Ambrose, 2005; Ryska & Vestal, 2004). Thus, the current results demonstrate a potential need to reconsider the negative stigma currently present in the literature on athletic motivation, particularly within a DIII environment.

Both quantitative and qualitative results demonstrated that student-athletes reported high motivation in both academics and athletics. Specifically, qualitative results demonstrated that student-athletes rarely saw their motivation for athletics in conflict with academics, but rather identified them as helping them to achieve different goals they have for their college career. For

example, student-athletes recognized the importance of receiving a degree in order to pursue their future careers and also found enjoyment from playing a sport to reach individual or team goals, so they feel motivated to do well in both areas for different reasons. This is consistent with the literature indicating that DIII student-athletes are effectively able to balance athletics and academics (e.g., Aries et al., 2004; Paule-Koba & Farr, 2018; Richards & Aries, 1999; Robst & Keil, 2000) as well as the quantitative findings that show athletic motivation to be neutral in terms of predicting academic success.

Consistent with reports of high motivation in both academics and athletics and the NCAA descriptions of DIII athletics, results indicated that both domains were important to student-athletes' sense of self. A majority of students reported that both roles were highly important to their identities, and some even discussed their ability to balance the two roles. This is important to consider in the context of expectancy-value theory in which an individual's choice, persistence and performance can be explained by how well they believe they will do on an activity and the extent to which they value an activity (Wigfield & Eccles, 2000). Findings from this study demonstrated the different personal values each role fulfills for student-athletes. For example, when describing their student role, many student-athletes discussed the importance of being seen as intelligent and knowledgeable and their future success. On the other hand, when describing their athlete role, student-athletes described how sports were a consistent part of their life, provided a sense of pride and confidence, and allowed them to identify with characteristics specific to athletics. Very few students reported feeling that athletics were a priority over academics. Thus, their reasons for identifying with either role are not necessarily in conflict with one another. This was also consistent with the quantitative findings on athletic and academic identity, and supports previous empirical research that has demonstrated the possibility of having high athletic and academic identities without conflict (e.g., Brown et al., 2000 Harrison et al., 2009; Harrison & Lawrence, 2003).

Finally, the psychometric issues that arose in evaluating the motivation subscales highlight a potential need to reconsider how we are measuring athletic an academic motivation in DIII student-athletes. Although previous literature validated the scale in DI populations (Gaston-Gayles, 2005; Willis, 2005), it has not been validated within a DIII population. Confirmatory factor analysis revealed psychometric issues, and qualitative and mixed-methods analyses revealed specific problematic items that may be important to investigate when measuring motivation in DIII student-athletes moving forward.

Ultimately, the current study provides insight into areas in which DIII student-athletes may differ from other student-athletes. Specifically, DIII student-athletes may not experience the same conflicts between athletics and academics that other student-athletes experience, and these differences may also support the need to re-evaluate how motivation is measured within this population.

Limitations

A major limitation of the current study was the extent to which the data violated assumptions of normality, particularly for the motivation subscales. Confirmatory Factor Analyses revealed problems with individual item correlations and item factor loadings for the SAMSAQ. Additional analyses revealed issues with multicollinearity and high skewness and kurtosis for individual items. These violations should be carefully considered when drawing conclusions from the results of this study. As mentioned previously, future research should re-

evaluate the use of the academic and athletic motivation subscales when working with this population.

Another important limitation of this study was the small number of participants that participated in the study in comparison to the total number of athletes at the participating institutions. Further research is needed with larger sample sizes from each sport in order to generalize the results. Likewise, some participating schools were not well represented in the current study. Though school was not a variable of focus, the limited number of participants from some areas should be considered. A more evenly spread population among schools may have been a better indication of the results from the conference included in the study.

A third limitation of this study was the potential for a biased sample. It is possible that motivation scores were found to be high due to the fact that students who chose to participate in the survey were particularly motivated students. Those who may choose to voluntarily participate in a scholarly activity such as responding to a survey regarding their academic and athletic identity and motivation may do so because they already feel highly motivated in these areas. Additionally, the two schools with the highest participation rates are ranked a #1 and #2 for strong academics in their conference. Thus, the responses may be somewhat biased towards a population with higher GPAs and higher academic identity and motivation.

Lastly, the open-ended survey questions included in the current study were able to provide additional detail and insight into the student-athletes' experiences. However, given the nature of the online survey, the responses were limited in depth compared to what other qualitative methods, such as interviews, would have yielded. Future research should consider in-depth interviews as an important method to investigate the identities and motivations of student-athletes in this population.

Implications

The current study is a step towards understanding academic and athletic motivation and identity in DIII collegiate student-athletes. Future research should continue to investigate this population in order to fully understand the experiences of student-athletes across all college divisions, not just high profile, DI programs.

There are a number of practical implications that can be concluded from the current study. First, the findings regarding athlete identity may have important implications for coaches, administrators and counselors who work with student-athletes on a regular basis. Within this population, students were found to have very high levels of athletic identity, but athletic identity was found to have a positive relationship with academic identity. Therefore, a strong commitment to their athlete role may not be seen as problematic in this population. On the contrary, it may be worthwhile to explore how professionals who work with student-athletes can encourage a healthy sense of athlete identity and continue to support the link between it and an academic identity. It is possible that this may be accomplished by coaches and athletic staff promoting a culture that effectively balances the student and athlete role. This is again consistent with the NCAA DIII philosophy that stresses the importance of academics and a balanced college experience for student-athletes.

Findings regarding the importance of athletic identity to students' sense of self may also have important implications for professionals helping student-athletes to transition out of the athlete role. The current study demonstrated that certain values central to student-athletes' sense of self were primarily associated with their athlete role. Thus, when student-athletes are no

longer participating in college athletics, these important parts of their identity may become more difficult to fulfill. Professionals responsible for helping student-athletes transition out of college may therefore assist student-athletes by helping them to find other areas of their lives in which they can fulfill similar values to those associated with their athlete identity (i.e. recreational fitness, coaching, other group activities).

Results from the current study also highlighted a potential need to re-evaluate the SAMSAQ as it applies to DIII populations. Future researchers who wish to study academic and athletic motivation in DIII student-athletes may consider adjusting the scale items to better represent the philosophy of DIII academic-athletic environments. Specifically, qualitative data from the current study may provide some insight into potential areas on which to focus future adjustments to quantitative scales. Additional qualitative research may also be beneficial in identifying potential areas of interest as the current study only employed open-ended qualitative questions, and other methods such as interviews may yield more detailed responses.

Conclusion

Ultimately, the current study is a step towards better understanding the DIII student-athlete population. Literature to date is primarily focused on DI student-athletes, and limited research is available on motivation and identity in both academic and athletic domains. The current study provides important insight into not only the differences that may exist between this population and other populations of student-athletes, but also the potential need to re-examine the way in which we measure constructs within this population. While some of the literature on student-athletes may be generalizable to DIII populations, some of the issues may not be relevant, especially considering the heavy focus on academics and holistic college experiences within the philosophy of NCAA DIII athletics. Moving forward, it will be important for scholars and professionals to distinguish the specific differences within the various populations of student-athletes in order to best support them in their academic careers.

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Appendix

Qualitative-Ended Survey Questions

1. What does “being a successful athlete” mean to you?
2. To what extent is being a successful athlete important to how you see yourself? Please explain your answer.
3. What does “being a successful student” mean to you?
4. To what extent is being a successful student important to how you see yourself? Please explain your answer.
5. Please explain why you are currently attending your school
6. Please explain how confident you feel that you will do well in your courses. Why do you feel this way?
7. Please explain how confident you feel that you will do well in your sport. Why do you feel this way?
8. Please describe how motivated you are to do well in your classes versus how motivated you are to do well in your sport.