

# The Impact of Post-Collegiate Playing Opportunities on DI Field Hockey Players and Their Athletic Identity

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Olympic sports tend to lack professional playing opportunities compared to league and revenue sports. This study evaluated how the lack of professional playing opportunity for Olympic sports might impact athlete identity. This study collected data from NCAA DI field hockey players utilizing the 10-item Athlete Identity Measurement Scale (AIMS) questionnaire. Researchers hypothesized the number of years playing field hockey, student-athlete grade level/graduation year, and the belief of playing at the next level would significantly impact athlete identity. Results refuted both hypotheses; however, results elicit further conversation about NCAA competition levels, the belief of playing at the next level, and the impact of youth sport development. The current study found athlete identity is complex and efforts at the micro-, mezzo-, and macro-levels to understand and assist student-athletes navigate their athlete identity is important for overall well-being. The study concludes with suggestions for future research and practical implications for exploring the complexities of athlete identity.

Keywords: athlete identity, student-athlete, college sport, field hockey

Brewer et al. (1993) defines athlete identity as "the degree to which an individual identifies with the athlete role" (p. 237). Athlete identity is a self-schema or a set of beliefs, which can negatively or positively influence an athlete's well-being. Research by Brewer et al. (1993) set the stage for understanding the positive and negative consequences of having a strong athlete identity. Having a strong athlete identity can help an individual develop a robust sense of self, positively impacting performance, and improving psychological and overall well-being. A

strong and healthy athlete identity can be beneficial to student-athletes as they transition out of sport as well and can utilize the resilience, competitiveness, and other skills learned to excel in their careers (Kidd et al., 2018; Menke & Germany, 2019). These are qualities one would want especially when competing in more elite environments; however, there are negative consequences to a strong athlete identity. Negative consequences include emotional difficulty transitioning out of sport, vulnerability to depression when experiencing an injury, and excessive training (Brewer et al., 1993; Cox et al., 2017; Kidd et al., 2018; Storch et al., 2005; Yang et al., 2007). These negative consequences impact at a micro- mezzo-, and macro-level.

From a micro-level perspective, athlete identity is an individual experience, but what shapes athlete identity is more complex. External and social factors do impact a person's self-schema (Brewer et al., 1993). Appraisal and attention from family, friends, media, colleges, and universities from a mezzo perspective reinforces the athlete role. From a macro perspective, policies created by the NCAA (National Collegiate Athletic Association) for example shape the well-being of a student-athlete (Moore et al., 2018). Athlete identity is a concept that continues to receive frequent attention in current literature and it is important to take a closer look at some of the variables shaping athlete identity.

# Athletic Identity and NCAA Competition Level

The NCAA is critical to understanding collegiate athletes and athlete identity. The NCAA (2022a) is an organization that oversees more than 520,000 student-athletes across three divisions. Across all three divisions, there is a difference in the amount of time spent in athletics. NCAA highlights that DI student-athletes are expected to give 33 hours a week towards athletics, while DII gives 31 hours and DIII gives 28 hours (NCAA, 2022a). Due to this variation in demand across the three divisions, research explored athlete identity of student-athletes in relation to NCAA competition level. Research in this area is not ubiquitous. Some researchers concluded that no significant difference of athlete identity exists across NCAA divisions and DI student-athletes have similar athlete identity levels as DIII student-athletes (Richards & Aries, 1999; Sturm et al., 2011). However, most research supported the idea that the more time a student-athlete spends involved in their sport (such as a DI student-athlete), the stronger their athlete identity will be (Brewer & Petitpas, 2017; Harrison et al., 2011; Kidd et al, 2018; Yukhymenko, 2014).

Huml (2018) evaluated student-athletes at every division level by utilizing the AIMS (7item scale) questionnaire and the results of the study suggested there is a similarity in athlete identity strength between DI and DII student-athletes (p=.752). However, DIII athletes as compared to DI athletes scored significantly lower (p=.039). Huml (2018) pointed to increased opportunities for career development, decreased commitment to sport for DIII athletes, and lack of professional opportunities as a potential explanation for these results. Additional research of athlete identity between NCAA competition level display similar findings (Elaskey, 2006; Harrison et al., 2011). Huang et al. (2015) focused on semi-professional athletes in Taiwan by examining athlete identity in comparison to career self-efficacy, career barriers, and college experiences. Athletes with a stronger athlete identity had fewer experiences (social or academic) outside of sport compared to those who identified with a weaker athlete identity.

## **Athletic Identity and Grade Level**

Researchers investigated athlete identity of student-athletes at every grade level and found no significant difference between underclassmen (first-year and sophomore students) and upperclassmen (junior, senior, and graduate students). These results suggest athlete identity remains consistent across each year in school (Potuto & O'Hanlon, 2006; Sturm et al., 2011).

In conflicting research, college juniors and seniors reported a difference and a moderate level of athlete identity compared to first-year and sophomores (Huang et al., 2015; Paule-Koba & Farr, 2013). Lally and Kerr (2005) investigated this difference in athlete identity strengths utilizing in-depth interviews. Findings suggest juniors and seniors invest less time in their athletic role identities because they begin to consider professional occupations and perhaps may come to realize the unlikeliness of playing at the professional level. Student-athletes considering and anticipating the end to a collegiate career and other potential avenues can be important for a healthy transition out of sport (Menke & Germany, 2019).

The third possibility when it comes to athlete identity and grade level is the potential for athlete identity to increase as a student-athlete progresses through college. Instead of a student-athlete viewing the end of their athletic career as a threat, they may embrace their identity and view it as a protective factor. Researchers refer to this as identity promotion and believe athletes may report higher exclusivity of athlete identity towards the end of their collegiate careers as a way to cope or protect their identities (Alicke & Sedikides, 2009; Benson et al., 2015; Hogg, 2000). However, despite it being a protective factor, this coping mechanism may make the transition out of sport more difficult (Alfermann et al., 2004).

## Athlete Identity, Youth Athletics, and Belief of Playing

Studies suggested athlete identity can peak and plateau for individuals along their continuum in participation of sport (Edison et al., 2021), and for many a peak tends to occur between the ages of 10 and 15. Therefore, research supports the idea athlete identity is formulated and relevant throughout adolescence (Houle et al., 2010). This is important for the present study as this is between the ages when elite competition begins to formulate in sports, particularly around ages 14 and 15. For example, the Olympic pipeline or "Futures" program through USA field hockey begins as early as age 14. Wendling et al. (2018) evaluated solely USA elite youth athletes focusing on what components contribute to the continual involvement in youth athletics. An important facilitator and deterrent from continual participation in youth athletics are college and professional aspirations and competence beliefs. Those with low competence beliefs often deter from participation in youth athletics. As mentioned earlier, those with a strong athlete identity have a strong sense of self, which likely means a higher level of competence (Babić et al., 2015; Brewer et al., 1993; Settles et al., 2002). This study highlights the possible negative impacts of having a weak athlete identity; however, one major concern is the belief in playing at a collegiate or professional level.

Many researchers explore the consequences of sport specialization. Youth athletes often receive encouragement to specialize in sports at a young age as a way to maximize sport

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performance (Brenner, 2016; Jayanthi et al., 2013; Moore & Sullivan, 2022; Myer et al., 2015). Yet, there are many consequences to this including injury, burnout, mental illness, increased resentment towards sport, and more (Jayanthi et al., 2013; Moore & Sullivan, 2022). With the potential of playing a sport at an elite level, youth athletes are not only starting sports earlier, but they may be formulating their athlete identity around a single sport entirely. It raises question as to whether sport systems such as the Olympic development or "pipeline" track where youth athletes are expected to partake in intensive training may inadvertently be encouraging sport specialization.

# **Following the Olympic Pipeline**

Like many other Olympic sports in the U.S., USA field hockey has an "Olympic pipeline" (USA Field Hockey, 2022). The Olympic "talent pipeline" or Olympic Development Program (ODP) is the development route that Olympic hopefuls follow. The Olympic Development Pathway Program or "Futures" is the model specifically developed and implemented by U.S.A. field hockey. Futures was established in 1990 and develops players in U-14, U-16, and U-19 age categories. This metaphorical "pipeline" starts in youth athletics for all Olympic sports (United States Olympic & Paralympic Committee [USOPC], 2022). The steps taken by athletes in this pipeline varies slightly from sport to sport, but it usually involves paraking in USA sanctioned tournaments or events where Olympic prospects perform and compete. Despite the varying steps from sport to sport, they all feed into one goal - to become an Olympic athlete. With 82% of Team USA's athletes competing at the collegiate level, collegiate sports are essential for shaping the next generation of Olympians (USOPC, 2022). Decisions about the health and well-being of collegiate athletes, including focus on athlete identity, is essential for the success of the USA on the biggest stage in sports.

Field hockey offers a unique perspective for the present study and is not often explored in research studies. The sport of field hockey exists at the youth, high school, collegiate, and Olympic levels. Field hockey lacks professional league playing opportunities. Between the years 2018-2019, regular participation in the sport of field hockey saw a 19.6% increase for children ages 6-12 and a 7.6% increase in ages 13-17 (USA Field Hockey, 2023). The number of youth field hockey players continue to grow around the country and USA field hockey and the NCAA led efforts to add field hockey programs to all NCAA divisions (NCAA, 2022b; USA Field Hockey, 2023).

#### **The Present Study**

The goal of this study was to understand athlete identity in a new light and within a context previously understudied. Many sports and in particular, Olympic sports often lack professional playing opportunities compared to revenue producing sports such as football and basketball. The Olympic development system starts in youth athletics and for many student-athletes, by the time they reach their collegiate years they usually know whether they will or will not play professionally. Most collegiate athletes will not play beyond college, but does the anticipation of the future and eventual termination of athletic involvement impact a student-athlete's athlete identity? Does the number of years playing the sport, year in school, and belief

of playing at the elite level impact athlete identity? The present study utilizes NCAA DI field hockey players as a way to explore these questions.

RQ: Are the number of years playing field hockey (IV), grade level/graduation year (IV), and the belief of playing at the next level (IV) significant predictors of athlete identity (DV)?

H1: Athletes with more years of playing experience, upperclassmen, and athletes with higher post-college playing belief will be a significant predictor for athlete identity.

# Methods

## **Research Design**

In order to answer the questions, the researchers employed an exploratory, crosssectional, web-based survey design. From this survey, they collected information from current DI field hockey student-athletes. The researchers first selected the statistical test needed to determine the desired sample size and answer the research questions. The researchers completed a multiple regression to explore the research question. The researchers used a statistical power of 0.80 and a medium effect size of 0.35. The researchers used confidence intervals of 0.05. The desired sample size for this study was a minimum of 33 student-athletes (Faul et al., 2007). The final sample included 43 DI field hockey players and exceeded these established standards.

To obtain the desired number of responses from field hockey student-athletes, researchers used an availability sample. The first author sent study information to all DI field hockey coaches (n = 78) via email. The coaches email addresses were public email addresses found on universities' official athletic websites. To be eligible for this study, participants were current DI field hockey players at an NCAA member institution. Participants had to be 18 years of age or older and identify as female. Researchers excluded all other individuals from this study. The original email to DI field hockey coaches contained a copy of the informed consent and a link to the web-based survey. Two reminder emails bolstered the response rate. The researchers sent reminders every 30 days during the data collection period (May 2022 – September 2022). The final response rate was 5%. The study received approval from the primary researcher's university institutional review board.

#### **Study Participants**

The researchers collected demographic information about a student-athletes academic standing, race and/or ethnicity, age, financial aid, belief about becoming a professional athlete, whether their college or university was public or private, and length of time playing field hockey. The largest percentage of field hockey student-athletes were juniors (n = 18, 42%) and identified as white (n = 38, 88%). The mean age was 20 with a range of 18-23. The largest type of financial aid for field hockey student-athletes were athletic scholarships (n = 36, 84%), family contributions (n = 30, 70%), and academic scholarships (n = 24, 56%). The vast majority of participants reported they are somewhat to extremely unlikely to play field hockey at the professional level (n = 33, 78%). Exactly 50% of participants identified their college as private

and the other 50% as public. The average number of years playing field hockey was 12 with a range of 6-19 years. See Table 1 for a complete breakdown of demographics. Table 1

Demographic	N	%
Characteristic		
Class Standing		
Freshman	5	12%
Sophomore	5	12%
Junior	18	42%
Senior	11	25%
Graduate	4	9%
Race		
White	38	88%
Black	1	2%
Multi-racial	1	2%
Hispanic	2	5%
Latina	1	2%
Age (M)	20	
Largest Type of Financial Aid		
Athletic Scholarships	36	84%
Family Contribution	30	70%
Academic Scholarships	24	56%
Likelihood To Play At Professional Level		
Somewhat-Extremely Likely	33	78%
Neither Likely Nor Unlikely	4	8%
Somewhat Likely	5	12%
Extremely Likely	0	0%
Institution Type		
Public	21	50%
Private	21	50%
Years Played (M)	12	

Athlete Demographics (N = 43)

#### **Measures and Instruments**

The researchers used the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993) for the web-based survey because of its high reliability and validity scores. The AIMS is an instrument that measures the degree to which an individual identified with their athletic role (Brewer et al., 1993). The subsections of the AIMS measure an athlete's self-identity, social identity, exclusivity, and negative affectivity. The AIMS has a high internal consistency ( $\alpha = 0.56$  to 0.89) and test-retest reliability ( $\alpha = 0.79$  to 0.81) (Brewer et al., 1993). Confirmatory factor analyses indicated an acceptable model of fit (CFI > 0.95) (Brewer et al., 1993). The AIMS has 10 questions and used a 7-point Likert scale with endpoints (1 = Strongly Disagree) to (7 = Strongly Agree) and contains a range of possible scores from 10-70.

Researchers used the AIMS because of its long-standing existence in peer-reviewed literature. Paule-Koba and Farr (2013), Huang et al. (2015), and Huml (2018) examined student-athletes across all three NCAA divisions utilizing the AIMS. These researchers made comparisons of athlete identity between DI and DIII utilizing AIMS (Sturm et al., 2011). Additional use of the AIMS for student-athletes explored gender identity and biological sex (Mignano et al., 2006; Murray, 2001). Studying solely DI student-athletes utilizing AIMS is also common in the existing peer-reviewed literature (Ballesteros et al., 2022; Melendez, 2009).

In addition to answering the AIMS, field hockey student-athletes answered the previously mentioned sport-related and demographic questions. The entire survey took approximately 10-15 minutes to complete in the Qualtrics<sup>TM</sup> system.

#### **Data Analysis**

Researchers entered collected data into SPSS for data analysis. Researchers used descriptive statistics to summarize major findings. Researchers used a multiple regression to examine the effect of multiple independent variables (years of playing field hockey, grade level/graduation year, and belief of playing at the next level) on the dependent variable (athlete identity). The use of a multiple regression estimates a model of multiple factors that best predict the criterion (athlete identity).

#### Results

### **Descriptive Statistics**

The total mean score of the AIMS with the current sample was 53.99. Researchers broke down the 10-item AIMS scale into four subsections including social identity (items 3 and 7), self-identity (items 1 and 2), negative affectivity (items 8 and 10), and exclusivity (items 4, 5, and 9). Item 1 ("I consider myself an athlete") scored the highest in the current sample (M = 6.67, SD = .644). Item 8 ("I feel badly about myself when I do poorly sport") scored the second highest in the current sample (M = 6.21, SD = .914). Item 9 ("Sports is the only important thing in my life") scored the lowest in the sample (M = 2.86, SD = 1.552), while item 5 ("I spend more

time thinking about sport than anything else") scored the second lowest (M = 4.72, SD = 1.548) in the present study (see Table 2). Table 2

AIMS Summary Scores

AIMS Questions	М	SD
1. I consider myself an athlete.	6.67	.644
2. I have many goals related to sport.	6.12	1.005
3. Most of my friends are athletes.	6.12	1.117
4. Sport is the most important part of my life.	4.98	1.520
5. I spend more time thinking about sport than anything else.	4.72	1.548
<ol> <li>I need to participate in sport to feel good about myself.</li> </ol>	4.98	1.655
7. Other people see me mainly as an athlete.	5.77	.922
8. I feel badly about myself when I do poorly in sport.	6.21	.914
9. Sports is the only important thing in my life.	2.86	1.552
10. I would be very depressed if I were injured and could not compete in sport.	5.56	1.501

# \*Total AIMS *M* = 53.99 **Multiple Regression**

## **Evaluation of Assumptions**

The researchers ran a multiple regression to estimate a linear equation that best predicts levels of athletic identity based on three factors: current grade level, years playing field hockey, and the likelihood of playing professional field hockey. Before the conduction of the analysis, several descriptive statistics and graphs examined the test assumptions. The test assumptions included normality of distributions, any linear relationships between athletic identity and factors, homoscedasticity, normality of residuals, and multicollinearity.

Measures of skewness and kurtosis, histograms, and Q-Q plots show the shapes of distribution of variables approaches that of a normal curve. A linear relationship existed between athletic identity and all factors using Pearson's correlation coefficients and scatterplots. Inspections of both the normal probability plots of the residuals and the histogram indicate that errors were normally distributed. Moreover, examination of the scatterplot of predicted scores against the residuals confirms the assumption of homoscedasticity was met. Finally, the assessment of the correlation matrices and both tolerance values and VIF show no multicollinearity exists among the three factors.

## **Results of the Multiple Regression**

The multiple regression analysis results revealed none of the three factors emerged as significant predictors of athletic identity (F = 1.019, p > 0.05). Overall, the model only explained 9% of the variance in athletic identity (R = 0.273).

#### Discussion

The researchers hypothesized athletes with more years of playing experience, grade level, and athletes with higher post-college playing belief will be significant predictors for athlete identity. Results from the study indicate that years of playing experience, grade level, and belief of playing professionally did not significantly impact athlete-identity. Results showed these variables only impact a small parentage (9%) of athlete identity.

# **Significant Findings**

Researchers explored three independent variables and their relation to athlete identity. The first independent variable explored was the number of years of playing the sport of field hockey. Participants number of years played ranged from 6 years to 19 years of playing. Some may hold the assumption that the longer an athlete has played a specific sport, the more successful they will be in that sport (DiFori et al., 2017; Vaeyens et al., 2009). However, the present study indicates that may not be the case. Researchers in the present study found that the number of years playing field hockey was not a significant predictor of athlete identity. Former

research studies provide a potential explanation for these results. Research on youth athletes who did specialize in a particular sport indicated a higher athlete identity compared to youth athletes who did not specialize early (Christino et al., 2021). Although athletes who specialize in a particular sport most likely play it for a longer period of time than their peers, perhaps the more appropriate question for this study would be when and if the participants specialized in field hockey in their youth. Therefore, it may not necessarily be the amount of time or years playing field hockey, rather the intensity and sole dedication to the sport that impacts the strength of athlete identity.

The second independent variable explored was grade level and athlete identity. Researchers hypothesized upperclassman would have a stronger athlete identity. Varying research exists around this specific variable and athlete identity. The present study found grade level is not a significant predictor of athlete identity. Some research suggests that athlete identity likely remains consistent across each year in school (Sturm et al., 2011; Potuto & O'Hannon, 2006) and the current studied yielded similar findings. Another potential reason that athlete identity was not impacted by grade level could be due to athlete identity salience. Salience of an identity means a "commitment to the role and actions associated with an identity" (Meyer, 2019). Collegiate athletes must take on many roles but positive "situations or interactions can increase the salience of an identity" (Lu et al., 2018). An example of a "positive situation" that may increase salience would be an athlete receiving media attention for their accomplishments. University cultures that embrace and reinforce the importance of athletics can influence an athlete's identity salience as well (Lu et al., 2018). This identity reinforcement on campuses, teams, and more can, but not always, lead the student-athlete to internalize their athlete identity to point of being "engulfed" in this role and can be pragmatic (Kidd et al., 2018). This variable is essential in the formation of athlete identity and can vary wildly not just across NCAA competition level but DI NCAA competition itself. The athlete identity of participants in the present study may be influenced be experiencing identity reinforcement from external factors previously mentioned not grade level. Unlike previous research, the present study evaluated a sport not yet studied independently in this context and only included DI female-identifying field hockey players. Conflicting research found that juniors and seniors reported a lower athlete identity level compared to underclassmen (Huang et al., 2015; Paule-Koba & Farr, 2013; Lally & Kerr, 2005).

The final independent variable explored in the present study was the belief of playing professional field hockey. The belief of playing professional field hockey was not a significant predictor of athlete identity. However, it could still mean that a strong athlete identity was formulated, reinforced, and facilitated at a young age for the participants in the present study (Houele et al., 2010; Wendling et al., 2018). Researchers from the present study evaluated the belief of playing professional field hockey and did not investigate the participants involvement and experiences in youth field hockey, potential sport specialization, and beliefs of playing collegiate field hockey (Brenner, 2016; Moore & Sullivan, 2022; Myer et al., 2015). Future research should explore these factors. In addition, professional field hockey, is not usually viable as a career path by itself.

Given the lack of significant findings, this research challenges researchers to further investigate what factors formulate and regulate athlete identity. One possible factor for additional exploration is competition level. For example, the mean of the total AIMS score in the present

study (M = 53.99) suggests NCAA competition might impact athlete identity. Aligned with previous research, DI student-athletes (in this case field hockey players) do score significantly higher on the AIMS compared to DIII student-athletes (Elaskey, 2006; Harrison, et al., 2011; Huang et al., 2015; Huml, 2018). For example, Elaskey (2006) reported when comparing athlete identity between DI student-athletes and DIII student-athletes, DI student-athletes overall had a higher AIMS mean (M = 50.41) than DIII athletes (M = 47.73). Not only does the present study have a higher AIMS mean total compared to DIII student-athletes, but also a higher total compared to other DI student-athletes.

Although there is a plethora of foundational research regarding athlete identity, researchers must continue to investigate athlete identity to better understand the changing landscape. Within the last several years, the current landscape and demands changed. Rule changes, social media, and cultural influence are bound to impact athlete identity (Harris et al., 2021). For example, with the passing of Name, Image, and Likeness (NIL) in collegiate sports, student-athletes have more opportunities and freedom than ever (Berst, 2021). Policies like NIL passed by the NCAA are critical when exploring athlete identity but more immediate influences like athletic and team cultures at DI institutions could influence athlete identity. For example, what does it mean to be a field hockey player at different DI institutions across the United States? Exploration of this type of cultural influence could give insight as to how athlete identity may differ or be similar across institutions.

#### **Practical Implications**

Athlete identity is complex and what shapes it may not be the factors we expect. Athlete identity is a self-schema, it is a way athletes see themselves and with it comes a set of beliefs about oneself that is vital to the psychological and overall well-being of an athlete not just on the field but in everyday life as well (Babić et al., 2015; ; Brewer et al., 1993; Settles et al., 2002). This self-schema, can be influenced by athletic culture, environment of the institution and more. Therefore, the weight and importance of this identity deserves the attention and support at the micro-, mezzo-, and macro-levels.

At the micro-level, athletes should have access to mental health professionals and resources and healthy support system to guide them through this aspect of their identity at all levels of sport. For collegiate student-athletes, access to sports psychologists and sport social workers can be important for the success of a student-athlete. Professionals can help student-athletes navigate this aspect of their identity by helping student-athletes maintain a healthy level of athlete identity and mediate schemas that surround student-athletes within their particular environment and athletic culture. Professionals can assist them with transition in and out of sport because it is not uncommon for collegiate athletes to feel a sense of "loss" when they transition out of collegiate sports and into the next phase of their lives (Kidd et al., 2018). In addition, professionals can help athletes navigate burnout, performance, and more.

At the mezzo-levels, for collegiate sports the colleges and universities that the studentathletes attend is crucial for helping support their student-athletes. Athletic departments at colleges and universities have the power to provide education and support resources to help student-athletes understand their multiple roles. Organizations such as USA field hockey are vital for the future of field hockey. They have the capacity to create conversations with athletes

of all levels, coaches, parents, referees, and fans about the entire well-being of their athletes and educate about the consequences of both a very strong or weak athlete identity. Education about athlete identity is important as well as encouraging athletes to prioritize balance in their lives and understand how athlete identity fits into a larger part of their overall identity. Other variables such as achieving good grades, having a healthy social life, family relationships, access to non-field hockey opportunities and more can indicate balance in an athlete's life.

At the macro-levels, the NCAA is very influential. NCAA policies oversee not just collegiate sports but also inadvertently impact how youth sports and even professional sports operate. Policies that specifically address athlete identity as a subset of mental health and a continual push for mental health resources impact the future success of student-athletes. The NCAA continues to address some of the best practices for understanding and supporting student-athlete mental health (NCAA, 2020).

### **Study Limitations**

Individuals should interpret results while considering limitations. As previously mentioned, the present study focused on a particular NCAA division, sport, and gender demographic. Due to the particularity of the sample, the overall sample size was smaller compared to other research conducted on athlete identity. The small sample size limited the extent of the multivariate statistical use. The sample used self-reported, quantitative data. Previous research determined athlete identity is complex and influenced by many variables. To gain a deeper understanding of athlete identity requires qualitative data (Newton et al., 2020).

## **Future Research**

Future research should not only recruit a larger sample size but also consider studying other demographics within intercollegiate sports including Olympic and non-Olympic sports. Future research should also compare the AIMS scores reported by female student-athletes from past literature to determine if there is any change in the strength of athlete identity. Finally, future studies could utilize both the AIMS questionnaire and in-depth interviews with student-athletes and ask specific questions about youth athletic experiences, interpersonal relationships, social influence, cultural influence and more to construct an accurate and well-rounded representation of athlete identity that one would not otherwise determine in a survey alone. Through an intensive interview process, researchers can learn more about the formation of athlete identity and the "self-schemas" and how specific experiences and sociocultural influences either strengthen and reinforce identity or hinder or weaken athlete identity.

## Conclusion

Factors such as the number of years playing a sport, grade level, and belief of playing professionally are not significant predictors of athlete identity. Athlete identity is more complex than imagined and researchers should continue to explore what shapes athlete identity. Understanding what athlete identity is and the consequences of it is important for athletes

spanning from youth to professional levels. Micro-, mezzo-, and macro-level work are essential for athletes to formulate and maintain a healthy athlete identity throughout their lives.

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