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**Athletic Identity and Career Maturity of Women's  
Basketball Student-Athletes**

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## **Abstract**

This study explored the relationship between the athletic identity and career maturity of women's basketball student-athletes. It specifically looked at the differences in athletic identity and career maturity based on the student-athlete's level of competition, race, year in school, socioeconomic status, and professional athletic career aspirations. A convenience sample of 209 women's basketball student-athletes from NCAA Divisions I, II, and III, as well as NAIA institutions participated in the study. Participants completed a demographic questionnaire along with the Career Maturity Inventory-Revised Attitude Scale and the Athletic Identity Measurement Scale. The findings suggest that within this sample of women's basketball student-athletes, stronger identification with the athletic role is associated with lower levels of career maturity. Results also indicated that NCAA Division I student-athletes had significantly higher levels of athletic identity and significantly lower levels of career maturity than Division II student-athletes. Likewise, women's basketball student-athletes that planned to pursue a professional basketball career ( $n = 76$ ) displayed significantly higher levels of athletic identity and significantly lower levels of career maturity than those that did not ( $n = 133$ ). As research suggests, less than 1% of women's basketball student-athletes will compete professionally (NCAA, 2017a). However, based on the findings of the current study, 36.4% ( $n = 76$ ) of the women's basketball student-athletes sampled planned to pursue a professional basketball career upon graduating. The results of this study can assist individuals working with these student-athletes (e.g., coaches, counselors, professors) to intervene and ultimately assist women's basketball student-athletes with preparation for life after sports.

## **Introduction**

Despite differences throughout National Collegiate Athletic Association (NCAA) Division I, II, and III institutions, as well as National Association for Intercollegiate Athletics (NAIA) schools, at some point most student-athletes will retire from sport. However, now that women's basketball has sustainable professional leagues (e.g., the Women's National Basketball Association [WNBA] and professional European leagues), women's basketball student-athletes have the opportunity to play professionally. The 2006 WNBA team rosters included 175 females from all over the world, 156 of which had played at NCAA and NAIA affiliated institutions (Isaacson, 2006). Research has shown that 47% of women's basketball student-athletes desire to pursue a career in professional sport (NCAA, 2016). But in reality, only 4.9% of women's basketball student-athletes will play professionally, including European play

(NCAA, 2017a). According to the NCAA (2017a), very few (.09%) women's basketball student-athletes will have the opportunity to play in the WNBA. There are two main concepts, however, that play an important role in determining how prepared student-athletes are for the transition to a career outside of sport: *career maturity* and *athletic identity*.

Career maturity is defined as the degree of confidence an individual has in the ability to make career-related decisions (Betz, Klein, & Taylor, 1996; Finch, 2009). Overall, career maturity involves understanding interests, capabilities, and values associated with preparing for future career possibilities (Brown & Hartley, 1998). To assist student-athletes in developing career maturity and prepare for sport retirement, many institutions have established career development programs (Ryan, Penwell, Baker & Irwin, 2015). For example, NCAA Division I Football Championship Subdivision (FCS) institutions have on average eight full-time employees that work in Athletics Student Life to assist student-athletes in maintaining eligibility and transitioning into a life after sport (NCAA, 2009; Stokowski, Blunt, Hardin, Goss & Turk, 2017). Services some institutions provide their student-athletes include career counseling, resume and cover letter assistance, career fairs, and interview preparation. To target specific problem issues in employment counseling, McAuliffe et al. (2006) developed the Career Planning Confidence Scale (CPCS), which measures six domains: readiness to make a career decision, self-assessment confidence, generating options, information-seeking confidence, deciding confidence, and confidence in implementing your decision (McAuliffe et al., 2006). Upon discovering student-athletes suffered from low CPCS scores (Ryan et al., 2015), the NCAA created a career development program designed to “develop leadership, communication, teamwork, motivation, and organizational skills” (Van Raalte, Cornelius, Brewer, Petitpas & Andrews, 2016, p. 1).

Athletic identity describes the degree to which an individual identifies with the athlete role (Brewer, Van Raalte & Linder, 1993; Lally & Kerr, 2005). The theory of athletic identity is critical in understanding student-athletes' susceptibility to adjustment difficulties and career development barriers (Adler & Adler, 1987). Student-athletes often plan and train to be professional athletes, and as such may resist examining other career paths or participating in career planning. Individuals who identify strongly with the athlete role may be less likely to explore other career, educational, and lifestyle options due to their intense commitment to athletics (Brown & Hartley, 1998; Houle & Kluck, 2015; Murdock, Strear, Jenkins-Guarnieri & Henderson, 2016).

Due to the perception that student-athletes participating in NCAA Division I revenue-generating sports (i.e., football, men's basketball) have an increased opportunity to play professionally, the majority of research pertaining to athletic identity and career maturity has focused on this population (Hinkle, 1994;

McKinney, 1991; Van Rheenen, 2011). Little is known about the career development and athletic identity of women's basketball student-athletes or student-athletes competing in programs outside the Division I level. Furthermore, most studies pertaining to career maturity and athletic identity are dated. Sport participation opportunities for women within the realm of higher education continue to increase – a staggering 45% since the turn of the century, according to the NCAA (2017a). However, even with more than 218,000 women participating in sport at NCAA member institutions, little is known about this population, especially regarding career maturity and athletic identity (NCAA, 2017b).

As research suggests, student-athletes who identify strongly with their athletic role tend to ignore exploring other career and educational ambitions unrelated to their sport (Lally & Kerr, 2005; Houle & Kluck, 2015; Tyrance et al., 2013). Since women have not had the same opportunities in professional sports as their male counterparts, even though the prospect of women becoming professional athletes has improved through sport participation and opportunity, it is unclear whether female athletes experience the same issues as men. Specifically, there is a gap in the literature that investigates the relationship of athletic identity and career maturity of women's basketball student-athletes. As basketball is arguably the most recognizable women's professional team sport in the United States, this study is delimited to that sport. Therefore, the purpose of this study was to examine the relationship between the athletic identity and career maturity of women's basketball student-athletes.

This study will attempt to test the following hypotheses:

1. There is a significant correlation between the athletic identity and career maturity of women's basketball student-athletes.
2. There is a significant difference in career maturity or athletic identity based on a women's basketball student-athlete's level of college competition.
3. There is a significant difference in career maturity or athletic identity based on a women's basketball student-athlete's year in school.
4. There is a significant difference in career maturity or athletic identity between women's basketball student-athletes who plan to pursue a professional basketball career and those who do not.

## **Review of Literature**

### **Role conflict – student vs. athlete**

Role conflict occurs when individuals find themselves pulled in different directions due to multiple identities (Crossman, 2013; Macionis & Gerber, 2010). When roles are associated with two different statuses or identities, it is considered

a status strain (Abbott, 1981). There are a number of studies that explore role conflict faced by college student-athletes (Adler & Adler, 1987; Sack & Thiel, 1985; Settles, Sellers & Damas, 2002). According to Robinson (2013), heavy demands of the athletic role conflict with other important roles. Women in particular must deal with the role conflict and expectations associated with simultaneously being an athlete, a student-athlete, and feminine (Allison, 1991; Robinson, 2013). Lance (2004) found that females scored significantly higher on the role conflict index than males, suggesting that females experience more status strain due to the societal expectations associated with female femininity being incompatible with the behavioral expectations for an elite college student-athlete. Role conflict among female student-athletes may cause issues related to limited peer relationships and deficiency of career and social development opportunities. Such conflict also creates limited self-concept and a decrease in self-worth and maturity levels (Robinson, 2013).

Research indicates that role conflict, in general, poses problems of adjustment for all individuals, and those with high levels of role conflict also experience lower levels of career maturity and satisfaction (Kahn, Quinn, Snook & Rosenthal, 1964; Murdock et al., 2016). Despite the importance and implications of role conflict, few studies have examined female student-athletes. There is a gap in the literature specifically regarding women's basketball student-athletes and this specific population's struggle with role conflict.

### **Athletic Identity and Career Maturity**

Athletic identity is the level to which an individual identifies with the athlete role (Brewer et al., 1993). A student-athlete's identification with the sports role can begin as early as childhood and continue through adolescence into adulthood (Brown & Hartley, 1998). During this process, the athletic role is affected by experience, various social relationships, and involvement in sports activities (Cornelius, 1995). Interactions with family members, friends, coaches, teachers, and even the media are very influential in developing athletic identity (Heyman, 1987; Houle & Kluck, 2015; Lally & Kerr, 2005; Murdock et al., 2016).

In psychological literature, maturity is not defined by one's age, but rather a person's ability to react and respond to a given situation in the appropriate way (Jagadeesh, 2012; Ryfe, 1989; Wechsler, 1950). Maturity is not instinctive but is learned, and the way a person makes decisions or deals with crisis indicates an individual's level of maturity (Wechsler, 1950). There are a variety of maturity types: physical, social, emotional, and career. Career maturity is defined as "the way in which an individual successfully completes certain career development tasks that are required according to his current developmental phase" (Super, 1957, p. 294). It is seen as the collection of behaviors necessary to identify,

choose, plan, and execute career goals. Super (1990) explained that the readiness of an individual refers to both cognitive and attitudinal components. The attitudinal dimension refers to an individual's attitudes and feelings about making and pursuing a particular career choice (Super, 1990). The cognitive dimension, meanwhile, signifies an individual's awareness regarding career-related decisions and overall understanding of vocational preferences (Crites, 1976).

Although the focus of this study is on women's basketball student-athletes, it is important to understand the career maturity of the general student body. The context of higher education is the ideal environment to assist students with career identity formation (Arnett, 2006). After all, the college years are a time of self-discovery where young adults have the opportunity to participate in career exploration through a variety of course offerings and major choices (Arnett, 2006; Beauchamp & Kiewra, 2004). Studies have shown that campus mentors (Arnett, 2006), parents (Alliman-Brissett, Turner, & Skovholt, 2004; Stringer & Kerpelman, 2010; Whiston & Keller, 2004), and personality also affect student career maturity (Rottinghaus et al., 2005; Profeli & Skorikov, 2010; Stoeber, Mutinelli, & Corr, 2016). However, student-athletes are a special group of students who have additional factors that play into career maturity.

In scoring career maturity levels of students, Murphy, Petipas and Brewer's (1996) study found that non-athletes scored higher than student-athletes; females scored higher than males; female student-athletes scored higher than male student-athletes; and males in revenue sports (football and basketball) scored significantly lower than student-athletes from other sports. Sowa and Gressard's (1983) research showed that student-athletes at a major university scored significantly lower than their non-athlete peers on measures of educational plans, career plans, and mature relationships with other students. Nevertheless, many student-athletes are still ill-prepared for transition to a life beyond sports after their college athletic careers are completed (Houle & Kluck, 2015; Terrance et al., 2013). Finch's (2009) study of career maturity among the student-athlete population found identity to be a predictor of career decision-making and self-efficacy (Finch, 2009). Similarly, in regard to the student-athlete population, numerous studies have shown that gender significantly impacts career maturity (Comeaux, Speer, Taustine & Harrison, 2011; Murdock et al., 2016). Brown and Hartley (1998) point out that of the 114 student-athletes who responded to their survey, few indicated the desire to pursue professional sport, perhaps indicating that the effects of athletic identity on career maturity are moderated by one's student role identity. Although only a few student-athletes indicated the desire to pursue a professional sports career, the student-athletes that desired to play professionally showed lower levels of career maturity compared to student-athletes who expressed interest in careers beyond sport (Brown & Hartley, 1998).

Blann (1985) compared male and female NCAA Division I and III student-athletes and non-athletes. The study discovered that junior and senior student-athletes at the NCAA Division III level displayed higher levels of career maturity than NCAA Division I male student-athletes (Blann, 1985). Freshman and sophomore student-athletes at both Division I and III levels had lower career maturity scores than non-athletes. However, the scores between junior and senior student-athletes at both levels were equal to that of non-athletes (Blann, 1985). Additionally, Brown and Hartley (1998) found no significant difference between level of athletic identity or level of competition and career development.

The theory of athletic identity is critical in understanding the student-athlete's susceptibility to adjustment difficulties and career development barriers (Adler & Adler, 1987). Individuals who identify strongly with the athlete role may be less likely to explore other career, educational, and lifestyle options due to their intense commitment to athletics (Brown & Hartley, 1998). Role conflict, in general, poses problems of adjustment for all individuals, and those with high levels of role conflict also experience lower levels of career maturity and satisfaction (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964). Murphy et al. (1996) suggests that many student-athletes either lack the time or interest to undertake career planning or view such preparation as a threat to their professional athletic career aspirations.

Most of the research examining the relationship between career maturity and athletic identity is limited to male student-athletes competing at a single NCAA Division I institution. The current study helps to highlight various aspects of athletic identity and career maturity within the specific segment of women's basketball college student-athletes. Research that spans among student-athletes participating in different levels of competition, particularly now that there are professional opportunities for women, are critical in order to better understand athletic identity and career maturity.

## **Methods**

### **Participants and Procedures**

The sample for this study consisted of female basketball student-athletes attending NCAA Division I, II, III, and NAIA institutions. Despite the differences in philosophies regarding the NCAA and the NAIA, Lancaster's (2012) study found that, similar to the NCAA, NAIA student-athletes also strive to become professionals in their respective sport. Student-athletes are extremely preoccupied by their schedules and tend to have time constraints (Stokowski et al., 2017); therefore, because one of the researchers was a collegiate basketball coach, a convenience sample consisting of institutions located in the southeastern region of the United States (where the researcher has contacts) was utilized. Upon receiving

approval from the Institutional Review Board (IRB), teams that agreed to participate in the study were mailed a survey packet in early fall before the season started that included an informed consent letter, the Career Maturity Inventory – Revised Attitude Scale, the Athletic Identity Measurement Scale (AIMS), and a demographic questionnaire. Coaches were asked to distribute and collect the surveys from women’s basketball student-athletes. Coaches returned the surveys to the researcher in a self-addressed envelope that was provided in the survey packet. In order to ensure anonymity, participants were asked not to divulge their names or the names of their institution on the survey. However, student-athletes were asked to provide their competition level on the demographic questionnaire.

The sample consisted of 15 NCAA Division I institutions (62 student-athletes), three NCAA Division II schools (40 student-athletes), 19 NCAA Division III schools (50 student-athletes), and 10 NAIA institutions (57 student-athletes). The total number of women’s basketball student-athletes who returned surveys was 212. However, three (1.4%) of those returned surveys were removed due to incomplete responses. Thus, the final sample size for this study was 209 women’s basketball student-athletes. A G\*Power 3.1.9.2 post hoc power analysis was used to confirm that the sample size was sufficient to achieve appropriate power, 0.8 assuming moderate effect size. The sample was comprised of student-athletes across all academic years of participation, which included freshmen through those in their senior year (students granted redshirt year(s) or graduate students). The sample also was grouped based on professional athletic career aspirations. A complete breakdown of the sample’s demographics is seen in Table 1.



Table 1

*Demographic Information of Participants*

Factors	<i>n</i>	%
Competition Level		
NCAA Division I	62	29.7
NCAA Division II	40	19.1
NCAA Division III	50	23.9
NAIA	57	27.3
Year in school		
Freshman	60	28.7
Sophomore	41	19.6
Junior	50	23.9
Senior and above	58	27.8
Professional athletic career		
Will pursue	76	36.4
Will not pursue	133	63.6

**Instruments**

**Demographic Questionnaire.** The demographic questionnaire was used to gather information about the participants' competition level, year in school, and professional athletic career aspirations. In order to determine the student-athletes' professional athletic career aspirations, student-athletes were asked to respond to the question, "Do you plan to pursue a professional basketball career when you are finished with your collegiate athletic career?"

**Athletic Identity Measurement Scale (AIMS).** The AIMS (Brewer et al., 1993) was utilized in its original format to measure the strength of identification with the athlete role. The instrument assesses an individual's perception of sports, affective reactions to sports-related outcomes, and exclusivity of identification of the athletic role. Brewer et al. (1993) reported a test-retest reliability coefficient of .89 over a two-week lapse period, and internal consistency is reported to be high

with an alpha coefficient of .93. The instrument contained 10 items, and participants responded on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) to certain statements. The AIMS asked the participants to respond to each statement, with items that included: “I consider myself an athlete,” “most of my friends are athletes,” and “sport is the most important part of my life.” The final score consists of the sum of the responses to the 10 items. Scores on the instrument range from 10 to 70. Higher scores on the instrument indicate higher levels of identification with the athlete role. Based on Nunnally’s (1978) work, an alpha coefficient of .70 or greater establishes an acceptable level of internal consistency. Support for construct validity also was provided after student scores on the AIMS were highly correlated with scores on the importance of sports competence scale of Fox’s (1990) Perceived Importance Profile (PIP),  $r(225)=.83, p<.001$  (Brewer et al., 1993).

**Career Maturity Inventory-Revised Attitude Scale (CMI-R).** The CMI-R (Crites and Savickas, 1996) was used in its original format to measure the degree of confidence a person has regarding their ability to make career-related decisions (Crites, 1978a). The CMI-R is one of the most widely used instruments for measuring career maturity. It is a revision of the 1978 version that included removing the school age population questions to make it more applicable to postsecondary and adult populations (Crites & Savickas, 1996). It consists of 25 diverse statements with an overall score ranging from 0 to 25 that measure attitudes and competencies of career maturity. Each statement has a score of 1 or 0 depending on whether or not a respondent chooses *Agree* or *Disagree*. CMI-R statement examples included: “There is no point in deciding upon a job when the future is so uncertain” and “I really can’t find any work that has much appeal to me.” An individual’s final score represents the individual’s overall maturity of attitudes and competencies that are vital in realistic career development (Crites, 1978a). A higher score indicates more developed attitudes toward career decisions. The 1978 CMI had internal consistency coefficients for the Attitude Scale at .78 and Competence Test Coefficients ranged from .63 to .86 (Crites, 1978b). Crites and Savickas (1995) reported that because the items in the 1996 CMI-R were selected from the 1978 CMI, the CMI-R has the same reliability and validity as the items in the previous edition. Busacca and Taber (2002) and Dipeolu (2007) found that the CMI-R has demonstrated suitable reliability and validity measures.

## Results

### Descriptive Statistics

As shown in Table 2, the final sample size for this study was 209 women’s basketball student-athletes attending NCAA Division I, II, III, and NAIA

institutions. Student-athletes also were divided based on their response to the question, "Do you plan to pursue a professional basketball career when you are finished with your collegiate athletic career?" Table 2 also includes the means and standard deviations for the AIMS and CMI-R for the individual factors investigated in this study. Normalcy of the data was assumed (see Table 2).

Table 2

*Means and Standard Deviations for the Factors on the Dependent Variables*

Factors	<i>n</i>	<u>AIMS</u>		<u>CMI-R</u>	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Competition level</b>					
NCAA Division I	62	53.68	9.80	16.53	3.14
NCAA Division II	40	48.02	7.06	18.25	2.54
NCAA Division III	50	50.82	10.09	17.50	2.80
NAIA	57	49.11	9.43	16.79	2.39
<b>Year in school</b>					
Freshman	60	52.03	8.80	16.67	3.02
Sophomore	41	49.90	10.70	17.07	2.56
Junior	50	50.28	9.20	17.48	2.61
Senior and above	58	50.12	9.62	17.47	2.90
<b>Professional athletics career</b>					
Will pursue	76	54.75	8.66	16.17	3.00
Will not pursue	133	48.33	9.18	17.73	2.54

In addition, a frequency distribution was performed in order to determine the percentage of student-athletes who planned to pursue a professional basketball career based on the different factors (see Table 3).

Table 3

*Frequencies and Percentages of Student-athletes that Plan to Pursue a Professional Sports Career Based on Different Factors*

Factors	<i>n</i>	Professional Career Pursuit	
		Will (%)	Will not (%)
<b>Competition level</b>			
NCAA Division I	62	47 (75.8)	15 (25.2)
NCAA Division II	40	3 (7.5)	37 (92.5)
NCAA Division III	50	13 (26.0)	37 (74.0)
NAIA	57	13 (22.8)	44 (77.2)
<b>Year in school</b>			
Freshman	60	19 (31.7)	41 (68.3)
Sophomore	41	19 (46.3)	22 (53.7)
Junior	50	19 (38.0)	31 (62.0)
Senior and above	58	19 (32.8)	39 (67.2)
<b>Total</b>	209	76 (36.4)	133 (63.6)

### **Inferential Statistics**

In order to assess the relationship between athletic identity and career maturity of women's basketball student-athletes and to identify variables that may affect this relationship, hypotheses involving competition level, year in school, and professional athletic career aspirations were included.

Hypothesis 1: There is a significant correlation between the athletic identity and career maturity of women's basketball student-athletes. To test this hypothesis, a Pearson product-moment correlation coefficient was computed to assess the relationship between women's basketball student-athletes' scores on the AIMS ( $M = 50.67$ ,  $SD = 9.49$ ) and CMI-R ( $M = 17.16$ ,  $SD = 2.81$ ). The results of the correlational analysis revealed a significant moderate negative correlation,  $r(207) = -.32$ ,  $p < .001$ . In general, the result suggests that women's basketball

student-athletes with higher levels of athletic identity displayed lower levels of career maturity. Therefore, Hypothesis 1 was accepted.

Hypothesis 2: There is a significant difference in athletic identity or career maturity based on a student-athlete's level of college competition. Therefore, a multivariate analysis of variance (MANOVA) was conducted to determine the effect of competition level on the two dependent variables of athletic identity and career maturity. Significant differences were found among the four competition levels on the dependent measures, Wilk's Lambda = .91,  $F(6, 408) = 3.26$ ,  $p = .004$ , thus Hypothesis 2 was accepted.

Analyses of variances (ANOVAs) on the dependent variables were conducted as follow-up tests to the MANOVA to determine what the differences were. Using the Bonferroni method, each ANOVA was tested at the  $p < .025$  ( $.05/2$ ) level to account for Type I error. The ANOVA demonstrated significant effects on the AIMS scores,  $F(3, 205) = 3.78$ ,  $p = .011$ , and also on the CMI-R scores,  $F(3, 205) = 3.76$ ,  $p = .012$ . This indicated that significant differences existed based on competition level for both the AIMS and the CMI-R. Because there were four levels of competition to be compared, Tukey Post hoc analyses were conducted to find out which levels of competition were significantly different. The results revealed that significant differences exist between NCAA Division I and NCAA Division II women's basketball student-athletes on both the AIMS ( $p = .016$ ) and the CMI-R ( $p = .013$ ). As shown in Table 2, these results indicate that women's basketball student-athletes competing at the NCAA Division I level have significantly higher levels of athletic identity and significantly lower levels of career maturity than women's basketball student-athletes at the NCAA Division II level. There were no significant differences found when comparing student-athletes at NCAA Division III or NAIA institutions against student-athletes at other levels of competition.

Hypothesis 3: There are significant differences in athletic identity and career maturity based on a women's basketball student-athlete's year in school. A MANOVA was conducted to determine if the year in school affected athletic identity and career maturity. There were no statistically significant differences between the four classification levels, Wilk's Lambda = .98,  $F(6, 408) = .69$ ,  $p > .05$ . Consequently, no follow-up procedures were required. Hypothesis 3 was rejected and indicates that no matter what year the student has completed, there is no difference in athletic identity and career maturity.

Hypothesis 4: There are statistically significant differences in athletic identity or career maturity between women's basketball student-athletes who plan to pursue a professional basketball career and those who do not. The results of the MANOVA for whether intention to pursue a professional career would affect athletic identity or career maturity found significant differences among the two groups on dependent measures, Wilk's Lambda = .86,  $F(2, 206) = 16.18$ ,  $p <$

.001. There was a difference in athletic identity and career maturity for those who wanted a professional career in basketball and those who did not. Thus, Hypothesis 4 was accepted.

ANOVAs were conducted as follow-up tests to determine whether athletic identity or career maturity were affected by plans to pursue a professional career. Using the Bonferroni method, each ANOVA was tested at the  $p < .025$  (.05/2) level to account for Type I error (Cabin & Mitchell, 2000). The ANOVA demonstrated significant effects on the AIMS scores,  $F(1, 207) = 24.63, p < .001$ , and also on the CMI-R scores,  $F(1, 207) = 15.96, p < .001$ . As shown in Table 2, these results indicate that women's basketball student-athletes who plan to pursue a professional basketball career after graduating display significantly higher levels of athletic identity and significantly lower levels of career maturity than those who do not intend to pursue a professional basketball career.

### Discussion

Overall, the results of this study suggest that women's basketball student-athletes with higher levels of athletic identity displayed lower levels of career maturity. This finding is consistent with literature (Lally & Kerr, 2005; Murphy et al., 1996; Houle & Kluck, 2015; Tyrance et al., 2013). As past research has demonstrated, student-athletes that identify strongly with their athletic role tend to have limited career ambitions (Lally & Kerr, 2005; Houle & Kluck, 2015; Tyrance et al., 2013). Furthermore, the theory of athletic identity can assist in explaining why women's basketball student-athletes experienced difficulties and career development barriers (Adler & Adler, 1987). In the current study, women's basketball student-athletes strongly identified with the athlete role; therefore, this population may be less likely to explore other career options due to a strong commitment to athletics (Brown & Hartley, 1998).

Significant differences were found between NCAA Division I and NCAA Division II women's basketball student-athletes on the measures of athletic identity and career maturity. Women's basketball student-athletes at NCAA Division I institutions had significantly higher levels of athletic identity ( $M = 53.68, SD = 9.80$ ) than women's basketball student-athletes at NCAA Division II institutions ( $M = 48.02, SD = 7.06$ ). Women's basketball student-athletes at NCAA Division II institutions had significantly higher levels of career maturity than women's basketball student-athletes at NCAA Division I institutions. The findings of the current study were somewhat consistent with Sack and Thiel's (1979) findings that NCAA Division I student-athletes experience greater role conflict than those in Division II or III. The results of the current study also are somewhat consistent with Blann's (1985) study in that student-athletes at NCAA Division I institutions demonstrated lower levels of career maturity when

compared to student-athletes in other divisions (Blann, 1985). However, results of the current study conflict with Brown and Hartley's (1998) findings in that no significant difference was found between competition level, athletic identity, and career development. The significant differences between NCAA Division I and NCAA Division II women's basketball student-athletes possibly could be attributed to the fact that various levels of athletic divisions have different philosophies and requirements of their student-athletes.

When comparing women's basketball student-athletes who plan to pursue a professional career to women's basketball student-athletes who do not, the results indicate that there are significant differences between the two groups. Of the women's basketball student-athletes ( $N = 209$ ) that participated in the current study, 36.4% ( $n = 76$ ) reported a desire to pursue a career in professional basketball. Therefore, a possible explanation for the differences between NCAA Division I and Division II women's basketball student-athletes may not be the differences in competition level but rather the underlying factor regarding plans to pursue a professional basketball career. It is important to note that in the present study, only 7.5% ( $n = 3$ ) of NCAA Division II women's basketball student-athletes planned on pursuing a professional basketball career in comparison to 75.8% ( $n = 47$ ) of NCAA Division I women's basketball student-athletes.

The results of the current study appeared to be consistent with Brown and Hartley's (1998) study in that student-athletes who indicated a desire to play professionally demonstrated lower levels of career maturity. Brown and Hartley's (1998) study also indicated that few student-athletes desired to pursue a professional sports career. Twenty years later however, the current study found that a majority of the sample indicated the desire to play professionally. Perhaps the increase in awareness of professional sport opportunities for women was a determining factor for participants to express that playing professional sports was a priority. Brown and Hartley (1998) found that student-athletes who indicated a desire to participate in professional sports demonstrated lower levels of career maturity compared to student-athletes who expressed interest in other careers. Similarly, results of the current study found that women's basketball student-athletes who desired to compete professionally demonstrated higher athletic identity and lower career maturity. However, Brown and Hartley (1998) only focused on investigating student-athletes in the sports of men's basketball and football. Perhaps such findings now pertain to women's basketball student-athletes as well.

It is expected that as one gets closer to graduation, interest in career development would increase. Interestingly, in this study there was no significant relationship found between the constructs when comparing year in school. This is in contrast to Lally and Kerr (2005) who found significant differences between second year student-athletes and those in their third and fourth year. However, it

is important to note that the Lally and Kerr (2005) study was qualitative and included both male and female respondents.

## **Recommendations**

As research suggests, less than 1% of women's basketball student-athletes will compete professionally (NCAA, 2017a). However, based on the findings of the current study, 36.4% ( $n = 76$ ) of the women's basketball student-athletes attending NCAA Division I, II, III and NAIA institutions plan to pursue a professional basketball career after graduating. The results show that these student-athletes display significantly higher levels of athletic identity and significantly lower levels of career maturity than those women's basketball student-athletes who do not plan to pursue a professional basketball career. Whereas in the past there was little opportunity for women to continue in sports after college, now it appears that between the WNBA and playing overseas, women aspire to continue participating. This is no longer just an issue for high profile sports (i.e., men's basketball and football), but rather an issue for any athlete that may have the possibility of competing at the professional position. Experiences, social relationships, and sport involvement directly impact athletic identity (Cornelius, 1995). Social relationships, specifically those of family, friends, coaches, and teachers, play an influential role in developing athletic identity (Heyman, 1987; Houle & Kluck, 2015; Lally & Kerr, 2005; Murdock et al., 2016). Thus, the family, friends, and athletic department staff members (e.g., coaches, counselors, professors) working with women's basketball student-athletes need to intervene and assist them in gaining a sense of self that expands beyond sport. Murphy et al. (1996) explained that due to time constraints, many student-athletes fail to undertake career planning. Therefore, perhaps women's basketball student-athletes should be given time to focus on career development exploration.

Research has demonstrated that college students should utilize their time on campus to participate in career exploration through taking a variety of courses and investigating different majors (Arnett, 2006; Beauchamp & Kiewra, 2004). Thus, first-year women's basketball student-athletes should be inspired to take courses of interest and be assessed to find out their major interests. Women's basketball student-athletes also should be assigned campus mentors, because they have been found to increase career maturity (Alliman-Brissett, Turner, & Skovholt, 2004; Stringer & Kerpelman, 2010; Whiston & Keller, 2004).

Murdock et al. (2016) reported that attending one or more career intervention program(s) failed to impact career maturity of student-athletes. Thus, current programs in place to assist women's basketball student-athletes should be assessed for effectiveness and modified for success. Programming also should be



exclusive to every team, as gender significantly impacts career maturity (Comeaux et al., 2011; Murdock et al., 2016).

### **Limitations**

Although this present study can potentially educate other researchers and practitioners about athletic identity and career maturity of women's basketball student-athletes, limitations do exist. The sample was derived from a convenience sample located in the southeast region of the United States and to schools where the author had a connection with coaches. Also, the sample did not delineate what types of institutions were selected. All the divisions were represented, but variables (i.e., private or public, religious or non-religious, Ivy League, location) were not considered. Thus, this sample may not be generalizable to all women's basketball student-athletes. Regarding the difference in women's basketball student-athletes who planned to pursue a professional career and those who did not, as well as regarding athletic identity and career maturity, there was a significant difference between women's basketball student-athletes at the Division I and Division II levels. However, such a finding may be due to the low number of responses ( $n = 40$ ) at the Division II level. While a significant effort was made to recruit more institutions, only three ( $n = 40$ ) Division II institutions agreed to participate. Thus, significant differences regarding Division II institutions could be attributed to the limited representation of this particular division.

### **Future Research**

Further examination of the relationship between athletic identity and career maturity is needed in order to continue understanding the development of women's basketball student-athletes. While the current findings suggest that athletic identity and career maturity among women's basketball student-athletes are related, further research must investigate other variables that could impact this relationship. For example, when comparing NCAA Division III and NAIA institutions against other competition levels in the current study, no significant relationships existed. Perhaps this finding is reflective of how and why student-athletes select schools. Thus, future research should examine why women's basketball student-athletes choose to compete at their respective institutions. Research also is needed to look at motivations for women's basketball student-athletes to compete at NAIA institutions, as little currently is known about student-athletes that compete within this particular association. Further research also must include a more representative sample of the women's basketball student-athlete population (instead of only student-athletes from the southeast region of the country). Future studies also should investigate other female sports

where there are opportunities to compete professionally (e.g., track and field, tennis, golf). Continuing this line of research will improve the overall understanding of the importance of college athletics in fulfilling the overall purpose of higher education. Lastly, upon learning the low levels of career maturity among student-athletes, the NCAA initiated career development programming (Van Raalte et al., 2016). Researchers should assess such career development initiatives to ensure program effectiveness if they are to be used as tools to increase career maturity.

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