

FACTORS ASSOCIATED WITH ATHLETES' TRANSITION OUT-OF-SPORT: ATHLETIC
IDENTITY, CAREER MATURITY, AND SUBJECTIVE WELL-BEING IN NCAA
FOOTBALL PLAYERS

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ABSTRACT

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Purpose: Athletic identity (AI), career maturity (CM), and subjective well-being (SWB) were examined because high AI has been reported to impede athletes' transitions out of sport (Alfermann & Stambulova, 2007; Brewer, et al., 1993). In contrast, high CM and SWB have been reported to facilitate the transition process (Houle & Kluck, 2012; Martin, Fogarty, & Albion, 2014). The influence of National Collegiate Athletic Association Division, Year in School, Race, and GPA also were examined in relation to these factors. **Method:** Participants included football players from NCAA Division I ($n = 46$) and Division III ($n = 47$) universities in Ohio. Participants were contacted via email and verbally recruited at the designated testing sites. Football players completed the Athletic Identity Measurement Scale (Brewer & Cornelius, 2001), Career Decision Scale (Osipow, et al., 1976), Satisfaction with Life Scale (SWLS; Diener, et al., 1985), and the Profile of Mood States (McNair, et al., 1992). **Results:** MANOVAs and ANOVAs were used to test the hypotheses. Based on the exploratory nature of this study, α was set at .10. D-I athletes reported higher scores than D-III athletes on AI ($p = .10$). This occurred for football players who were high as well as low in CM. There were no differences in AI by Race or Year in School. There also was no difference in GPA between athletes in the two Divisions. However, there was a trend for an AI by Division interaction for SWL ($p = .129$). Athletes with high AI levels from the D-I team tended to have lower SWL than athletes from the D-III team who also displayed high AI ($p = .11$). In addition, D-I football players reported less desirable moods ($p = .03$) than D-III athletes on Tension, Depression, Fatigue, and Confusion. **Conclusion:** D-I athletes had higher AI, less desirable mood traits, and tended to have lower

SWL scores compared to D-III athletes. Results from this study may reflect multiple factors influencing differences between D-I and D-III athletes. One of these may be the influence of both teams' winning and losing seasons on the players' subjective well-being. Further studies are needed to examine the SWB in athletes from different NCAA Divisions to better assist them in maintaining high levels of SWB as they encounter the challenge of transitioning out of sport.

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CHAPTER I. INTRODUCTION

An athlete's participation in a sport has a lifecycle that begins from the time he or she starts to participate in a sport and continues until he or she stops participating in sport. The typical sport-related lifecycle for most athletes lasts between 10 to 17 years and often occurs between the ages of 5 to 22 years. During their years of competition, athletes may experience unanticipated transition processes as they move through their sport lifecycle. This may include gaining a new coach/coaching staff, experiencing a season-ending injury, or failing to maintain their program's required GPA. However, all collegiate athletes experience two transition processes, which is transitioning into and transitioning out of collegiate sport (Fuller, 2014; Lubker & Etzel, 2007). Both transitions are unavoidable and require athletes to cope with multiple physical and psychological demands. These demands may include experiencing taxing training loads, maintaining academic requirements, or managing stress and anxiety (Fuller, 2014; Lubker & Etzel, 2007).

Collegiate Level Athletics

At the collegiate level, the National Collegiate Athletic Association (NCAA) governs student-athletes. For athletic competition, the NCAA classifies universities into one of three divisions based on level of competition and the resources of their athletic departments (Berkman, 2015). NCAA Division I (D-I) is the highest athletic-level of competition of the three Divisions (Berkman, 2015). D-I universities generally have the largest student bodies and the largest athletic budgets; therefore, D-I universities are able to offer the most athletic scholarships of the three Divisions (National Collegiate Athletic Association; NCAA, 2017). NCAA Division II (D-II) is the second highest athletic-level of competition. D-II universities offer partial athletic scholarships to student-athletes (compared to full scholarships that are offered at D-I universities). These universities also offer student-athletes funding through academic aid, need-

based grants, and/or employment earnings (NCAA, 2017). Another major difference between the two divisions is that D-I teams often travel nationally to compete; however, D-II teams often compete regionally (Berkman, 2015). NCAA Division III (D-III) is the lowest athletic-level of competition; however, D-III universities tend to have the highest number of participants across the three Divisions (Berkman, 2015). NCAA D-III universities are not able to provide athletic-based scholarships to student-athletes. However, funding is available through other means such as leadership grants, academic scholarships, and need-based financial aid.

Life after College

After graduating from college, athletes will either play sport professionally, or transition into a life without the responsibilities and requirements of competitive sport. Although many athletes may desire to compete in sport at the professional level after graduation, the likelihood that they will progress to the professional level is relatively small (National Collegiate Athletic Association, 2015). For example, male basketball players at the collegiate level have approximately a 1.2% chance of being drafted by an NBA team, and college football players have a 1.8% chance of being drafted by a NFL team (NCAA, 2015). Based on figures such as these, most collegiate-level athletes will retire from competitive sport once their college eligibility has expired (Tyranee, Harris, & Post, 2013).

Most athletes will need to navigate the transition process after they graduate from college since only a small percentage of athletes transition out of collegiate-level sports and go on to play at a professional level. Athletes who transition out of collegiate-level sport will have to form new self-identities and redefine themselves in society (Taylor & Ogilvie, 2001). Ideally, these athletes would plan for athletic retirement before it is time for them to transition out of their sport. This pre-transition planning can positively influence an athlete's transition out of sport

(Cummins & O'Boyle, 2014; Pearson & Petitpas, 1990; Schlossberg, 1981). However, for many student-athletes, their strong identification with their athlete role seems to overshadow the need to explore new identities and viable career options (Brown, Glastetter-Fender, & Shelton, 2000). Therefore, it is imperative that college athletes are encouraged to engage in career planning, especially since a small percentage of NCAA athletes play their sport at a professional level after graduating from college.

Factors that Influence the Transition Out of Sport

Athletes may either experience a positive or negative transition out of sport. A positive transition occurs when athletes are able to adjust to life outside of sport with little to no problems, such as forming new social relationships, securing a job, establishing financial stability, and creating a meaningful life for themselves (Bernes et al., 2009; Fuller, 2014; Sinclair & Orlick, 1993). A negative transition process can occur when athletes are not able to adjust to life outside of sport participation and fail to effectively cope with the transition challenges such as loss of athletic identity, depression, anxiety, feelings of isolation, etc. (Fernandez, Stephan, & Fouquereau, 2005). A positive or negative transition process largely depends on the athlete and the resources that he or she has available. Support from friends and family would be a perfect example of resources that may be available for athletes. Factors such as how strongly athletes identify with their athletic roles and steps taken by athletes prior to athletic retirement (e.g., pre-transition planning) can positively or negatively influence their transitions out of sport (Alfermann & Stambulova, 2007; Brewer Van Raalte, & Linder, 1993; Fuller, 2014).

A hurdle for many athletes during their transition out of sport is forming a new self-identity (Brewer et al., 1993; Taylor & Ogilvie, 2001). Beamon (2012) proposed that one's identity is comprised of a *self-identity* (i.e., how one views oneself) and a *social identity* (i.e.,

how the self is viewed by others). Self-identity can be formed based on talents, personality and character traits, academic performance, occupation, etc. (Beamon, 2012). Athletes who are continuously reinforced socially for their athletic abilities and form their self-identities primarily on their own athletic performances will have identities strongly centered on their athletic participations (Beamon, 2012). The extent to which athletes attribute their self-worth and identity to their sport participation and achievements has been defined as *athletic identity* (Brewer, et al., 1993; Taylor & Ogilvie, 2001, p. 678).

Athletic Identity

Athletic identity has been reported to be a key factor that can negatively impact an athlete's transition out of sport (e.g., Alfermann & Stambulova, 2007; Brewer et al., 1993; Cummins & O'Boyle, 2014; Fuller, 2014; Martin, Fogarty, & Albion, 2014; Taylor & Ogilvie, 1994). Brewer and colleagues (1993) developed the Athletic Identity Measurement Scale to measure athletic identity. This 10-item scale and an abbreviated 7-item version have been used by many researchers to examine athletic identity (e.g., Alfermann & Stambulova, 2007; Brewer et al., 1993; Cummins & O'Boyle, 2014; Fuller, 2014; Martin, Fogarty, & Albion, 2014; Taylor & Ogilvie, 1994). Researchers have reported that athletes who are strongly committed to their athletic identity find it difficult to cope with transitioning out of sport and forming new identities (e.g., Alfermann & Stambulova, 2007; Fuller, 2014; Lally, 2007). When asked about their transition experiences, athletes have stated that it was hard for them to perceive themselves as anything other than athletes and reported experiencing an intense loss of their overall identities (Fuller, 2014).

Internal and external factors. Athletic identity can be strengthened by internal and external factors. For athletes, the strong belief that they will have a future in professional sports is an example of an internal factor (Fuller, 2014). An example of an external factor would be an athlete's teammates, athletes in other sports who also strongly identify with their sport and students across campus who recognize and identify them as athletes (Fuller, 2014; Weigand, Cohen, & Merenstein, 2013). Social recognition is an external factor that reinforces students' mindsets that they are athletes and may even lead to *student-athletes* acting more as *athlete-students*. This reverse role identity strengthens their athletic identities and leads to a more difficult process of transitioning out of sport. Another example of an external factor that can influence athletic identity levels would be an athlete's environment (Fuller, 2014; Weigand et al., 2013). In the present study, an athlete's environment included factors such as NCAA Division and year in school. These factors were examined to observe the influence they have on factors such as athletic identity and subjective well-being. Athletic competition, such as high school, collegiate level, professional level, etc., is another example of an external factor. Athletes in high-level competition, such as the collegiate-level, have been found to strongly identify with their athletic role (Beamon, 2012). In the present study, participants were collegiate level athletes.

Race and athletic identity. When examining factors influencing strength of athletic identity, it has been reported that Black athletes, especially football and male basketball athletes, tend to identify with their athlete role more than athletes of other races (e.g., Beamon, 2008, 2012; Beamon & Bell, 2006; Harrison, Sailes, Rotich, & Bimper 2011). Beamon (2012) explained that over identification with the athlete role might be because Black athletes have been "socialized intensely into sports by family, peers, media, and community" (p. 196). This could

lead to athletes often excluding themselves from activities outside of their sport and may increase levels of athletic identity (Brewer, Van Raalte, & Petitpas, 2000). To better understand the relationship between race and athletic identity, the two factors were examined in the current study.

Career Maturity

Career maturity is the readiness to make age-appropriate and well-informed decisions regarding career opportunities (Alfermann & Stambulova, 2007; Heird & Steinfeldt, 2013; Murphy et al., 1996; Pearson & Petitpas, 1990; Sinclair & Orlick, 1993). It has been reported that student-athletes who strongly identify with their athletic role tend to have lower levels of career maturity, as well as higher than average expectations of becoming a professional athlete (e.g., Heird & Steinfeldt, 2013; Murphy, Petitpas, & Brewer, 1996). Athletes with strong athletic identities and low career maturity levels “may be less likely to explore other career, educational, and lifestyle options because of their intensive involvement in sports,” (Brown et al., 2000, p. 53). Athletes have reported that they lack the time and/or the interest needed to plan for careers outside of sport (Fuller, 2014; Tyrance et al., 2013). Some athletes may consider planning for sport termination and a possible career as a threat to their athletic identities and their dreams of becoming professional athletes (Fuller, 2014; Tyrance et al., 2013). This mindset can cause student-athletes who have strong athletic identities to be less prepared for life after sport than athletes who do not identify as strongly with their athletic roles (Baillie & Danish. 1992; Heird & Steinfeldt, 2013).

The combination of high athletic identity and low career maturity can result in undesirable psychological states for athletes during their transitions out of sport. These undesirable states may include stress, depression, decreased levels of subjective well-being,

feelings of being unprepared for life outside of sport participation, etc. (Alfermann & Stambulova, 2007; Baillie & Danish, 1992; Heird & Steinfeldt, 2013; Pearson & Petitpas, 1990; Stambulova, Stephan, & Japhag, 2007). These undesirable psychological states have been termed *transition distress* (Alfermann, 2000; Baillie & Danish, 1992; Stambulova, Stephan, & Japhag, 2007). It has been estimated that approximately 15% to 20% of athletes who retire from sport experience transition distress, which can lead to lower levels of subjective well-being (Alfermann, 2000). Thus, the relationship among career maturity, athletic identity, and subjective well-being in collegiate football players was examined in this study.

Subjective Well-Being

Subjective well-being (SWB) reflects an individual's evaluation of three major components: one's satisfaction with life, the presence of positive mood, and the absence of negative mood (Diener et al., 2018; Diener, Oishi, & Lucas, 2003; Diener & Seligman, 2002). *Satisfaction with life* (SWL) has been defined as one's positive evaluation of their life (Pavot, Diener, Colvin, & Sandvik, 1991). *Mood* refers to both positive and negative feelings, such as vigor, depression, anger, fear, tiredness, etc. (McNair, Lorr, & Droppleman, 1992). An individual who has high level of satisfaction with life and experiences higher levels of positive affect compared to negative affect is considered to have high levels of SWB (Diener et al., 2003).

A negative relationship has been reported between subjective well-being and high athletic identity (e.g., Grove et al., 1997; Martin et al., 2014; Verkooijen, Van Hove & Dik, 2012; Weigand et al., 2013). A strong identification with the athlete role can lead to the development of a one-dimensional identity (Verkooijen et al., 2012). A one-dimensional identity can form when an athlete solely defines him/herself with a single identity (i.e., an athlete) due to the lack of exploration of interests/roles outside of their current role or interest (Verkooijen et al., 2012).

A one-dimensional identity has been associated with decreased levels of subjective well-being (e.g., Brewer et al., 1993; Coakley, 1992; Tyrance, Harris, & Post, 2013; Verkooijen et al., 2012). Athletes with a one-dimensional identity tend to be more dependent on their athletic performance to increase their self-worth, esteem, and confidence when they were compared to athletes with multi-dimensional identities (Verkooijen et al., 2012). Unwanted outcomes such as poor performance, injury, or even athletic retirement can lead to a decrease in an athlete's self-worth and a subsequent decrease in subjective well-being (Brewer et al., 1993; Tyrance, Harris, & Post, 2013; Verkooijen et al., 2012). In the present study, athletic identity and subjective well-being were examined to explore a potential relationship between the two factors.

Current Investigation

In the current study, athletic identity, career maturity, and subjective well-being were examined because these factors have been reported to influence an athlete's transition out of sport (Alfermann & Stambulova, 2007; Brewer, et al., 1993). Athletic identity was examined because a strong identification with the athlete role has been reported to negatively influence athletes during their transition out of sport (e.g., Alfermann & Stambulova, 2007; Fuller, 2014; Lally, 2007; Verkooijen et al., 2012). Career maturity and SWB were examined because a strong athletic identity has been related to athletes' low levels of career maturity and SWB. This could be due to athletes identifying with their athletic roles and having higher than average expectations of participating in sport at the professional level (Fuller, 2014). This plan to join a professional team may cause athletes to avoid planning for life after sport. This lack of planning for their future tends to result in lower levels of career maturity, and ultimately may lead to lower levels of SWB.

Athletic identity, career maturity, and subjective well-being also were examined in relation to factors such as GPA, NCAA Division, Race, and Year in School. To the researcher's knowledge, this is the first study that has examined the differences among all of these factors. Athletic Identity was the only variable that was examined in relation to all the factors (i.e., GPA, NCAA Division, Race, Year in School, as well as Career Maturity, and Subjective Well-Being). Career Maturity and Subjective Well-Being were only examined in relation to NCAA Division and Year in School.

NCAA football players were examined in the present study because athletes in revenue producing sports such as football have been reported to have higher athletic identity scores and lower career maturity subjective well-being scores compared to athletes in other sports (e.g., Fuller, 2014; Jacobs, 2015; Murphy et al., 1996; Tyrance, Harris, & Post, 2013). NCAA D-I and D-III athletes were selected because previous studies have not reported significant differences between D-I and D-II athletes (Brown & Hartley, 1998). There have been no studies conducted, to my knowledge, that have examined the differences between D-I and D-III athletes in relation to the current factors examined.

Factors such as career maturity and subjective well-being are important to examine because the likelihood of NCAA athletes playing at a professional level is small. According to the NFL draft data from 2015, there were 251 NCAA draft picks, which included no NCAA Division-III athletes (NCAA, 2015). Most were drafted from NCAA Division I (D-I) universities (NCAA, 2015). This data led to the overall research question: how will D-I football players differ from D-III football players on the select factors of Athletic Identity, Career Maturity, and Subjective Well-Being? To answer this research question, athletic identity, career maturity, and subjective well-being levels were measured and compared between NCAA D-I and D-III football

players. To test this overarching question, the following hypotheses focused on the differences among NCAA Division, Year in School (i.e., Freshmen to Senior year and some 5th year Seniors), as well as Race and GPA on Athletic Identity, Career Maturity, and SWB.

Specific hypotheses were as follows:

1. Athletic Identity will be higher/stronger for D-I than for D-III athletes and will be higher/stronger for upper classmen athletes than for lower classmen athletes.
2. Athletic Identity will be higher in football players in both Divisions I and III athletes and upper and lower classmen who score low on career maturity.
3. Athletic Identity scores will be higher in athletes who are Black in comparison to other Races.
4. Career Maturity scores will be higher for D-III and upper classmen football players than D-I and lower classmen players.
5. GPAs will be lower in athletes who have higher levels of Athletic Identity and in D-I athletes.
6. Satisfaction with Life scores will be higher in football players who score lower in Athletic Identity than those who score high, and higher in D-III football players than D-I athletes.
7. Mood scores will be more desirable in football players who score lower on Athletic Identity than those who score high, and more desirable in D-III football players than D-I athletes.

CHAPTER II. LITERATURE REVIEW

In this chapter, literature related to the transition out of sport is reviewed and the evolution of research on athlete retirement is presented. This information provides a basis for understanding how research in the area has progressed, and how researchers currently study athletic retirement. Then, existing theories and models related to athletic retirement are examined. Reasons for athletic retirement will be clarified, with graduation from college as the main reason for athletic retirement in the current study. Finally, factors that have been reported to influence the transition out of sport are presented and reviewed. These factors include athletic identity, career maturity, and subjective well-being.

Transition Out of Sport: Evolution of Research

There have been many changes over the years in how researchers have studied athletes and their transition out of sport (Stambulova, Alfermann, Statler, & Côté, 2009). An early change in the research literature was how the term *transition* was defined. Schlossberg (1981) defined a transition as “an event or non-event [that] results in a change in assumptions about oneself and the world and thus requires a corresponding change in one’s behavior and relationship” (p. 5). Examples of an event could include an athlete gaining a new coach, switching to a new team, playing at a new position/competitive level, and retirement from sport. A non-event could be when an athlete does not experience a change that he or she was expecting, such as expecting to start the following season but not, or even getting cut from the team. At the time, Schlossberg’s (1981) definition of a transition was widely accepted; however, the definition was later challenged by researchers who suggested that describing a transition as a single, abrupt event was inaccurate (Goodman, Schlossberg, & Anderson, 2006; Stambulova et

al., 2009). Researchers began to conceptualize the transition out of sport as a process that can include negative as well as positive outcomes (Stambulova et al., 2009).

Another change in the literature on transitions in sport was the shift in focus researchers made from concentrating primarily on athletic retirement to focusing on multiple transitions that take place throughout the athlete's sport career. This view was known as the *whole-career approach* (Stambulova et al., 2009). Stambulova and colleagues (2009) explained that with the whole-career approach, the transitions that athletes experience throughout their sport careers could potentially influence their transition out of sport. The whole-career approach starts from the time an athlete begins sport participation and ends when an athlete transitions out of sport. An athlete has broader life issues than those related to sport (e.g. academics, well-being, family and friends, etc.). These broad issues also influence an athlete's transition experience (Stambulova et al., 2009; Wylleman, Alfermann, & Lavalley, 2004).

A third change in the research literature was the development of new models that reflected the transition out of sport. Early models of athletic retirement were adopted from models related to retirement from work (Stambulova et al., 2009). These models included social gerontology and thanatology models. Social gerontology models are related to the aging process and how society, in relation to aging, can impact the retirement process (Johns, Lindner, & Wolko, 1990). Thanatology models are related to the dying process, specifically the "psychological, social, and physical reactions to death" (Morris, 2013, p. 14). Thanatology models were used to explain the *social death* athletes may experience after they retire from sport (Morris, 2013). Researchers have concluded that these models did not appropriately reflect the transition process (Lavalley, 2000; Morris, 2013; Schlossberg, 1981; Taylor & Ogilvie, 1994). Furthermore, these models did not consider the difficulties athletes may experience post-

retirement (Lavallee, 2000; Morris, 2013). It was concluded that neither of these models properly detailed an athlete's transition out of sport. Thus, researchers developed new models (e.g., Human Adaptation to Transition Model, Athletic Career Transition Model, Conceptual Model of Career Transition, etc.) that were specific to retirement from sport (Schlossberg, 1981; Stambulova, 1994; Taylor & Ogilvie, 1994).

Models Related to the Transition Out of Sport

Many models have been developed to describe an athlete's sport-career. However, only a few of these models focus on the actual transition out of sport and what that process entails. Career Transition Models are the primary models used to describe the transition out of sport (Fryklund, 2012). In these models, transition stages and experiences athletes may go through are detailed, as well as reasons, demands, and consequences related to athletic retirement (Fryklund, 2012). Resources available for athletes trying to cope with any negative experiences they may encounter during their transition process are also provided in these models.

Three main Career Transition Models are used to explain the athletic retirement process. These include The Human Adaptation to Transition Model (Schlossberg, 1981), the Conceptual Model of Career Transition (Taylor & Ogilvie, 1994), and the Athletic Career Transition Model (Stambulova, 1994). In the Human Adaptation to Transition Model (Schlossberg, 1981), transitions that athletes may experience in sport are identified, along with factors that influence the transitions. However, this model does not describe sport-specific factors associated with career transitions. Thus, modified versions of Schlossberg's (1981) model were developed (Stambulova, 1994; Taylor & Ogilvie, 1994). The models developed were the Conceptual Model of Career Transition (Taylor & Ogilvie, 1994) and the the Athletic Career Transition Model (Stambulova, 1994). These models were sport-specific and described the athlete's transition out

of sport. In the Conceptual Model of Career Transition, information such as reasons for athletic retirement, factors that influence the transition process, resources available for athletes, etc., are detailed (Taylor & Ogilvie, 1994). In the Athletic Career Transition Model, Stambulova (1994) viewed athletic retirement as a process in which athletes must effectively cope with the demands placed on them. If athletes can effectively cope with these transition demands, then they will experience a positive transition out of sport. However, if athletes fail to cope with the transition demands placed on them, then they will experience a negative transition process (Stambulova, 1994).

Both Stambulova (1994) and Taylor and Ogilvie (1994) effectively explained the athletic retirement process through their models; however, the transition model used to further understand the transition process in the present study was the Conceptual Model of Career Transition (Taylor & Ogilvie, 1994). Through this model, one can clearly identify reasons for athletic retirement and ways athletes can cope with their transition out of sport. This model is further detailed.

The Conceptual Model of Career Transition

In this model, Taylor and Ogilvie (1994) proposed five stages that tend to occur during an athlete's transition out of sport. These include: 1) reasons for career termination; 2) factors that are related to adaption to career transition; 3) resources available to help athletes transition out of sport; 4) quality of career transition; 5) interventions strategies available to athletes (Taylor & Ogilvie, 1994). See Figure 2.1 for a diagram of these stages.

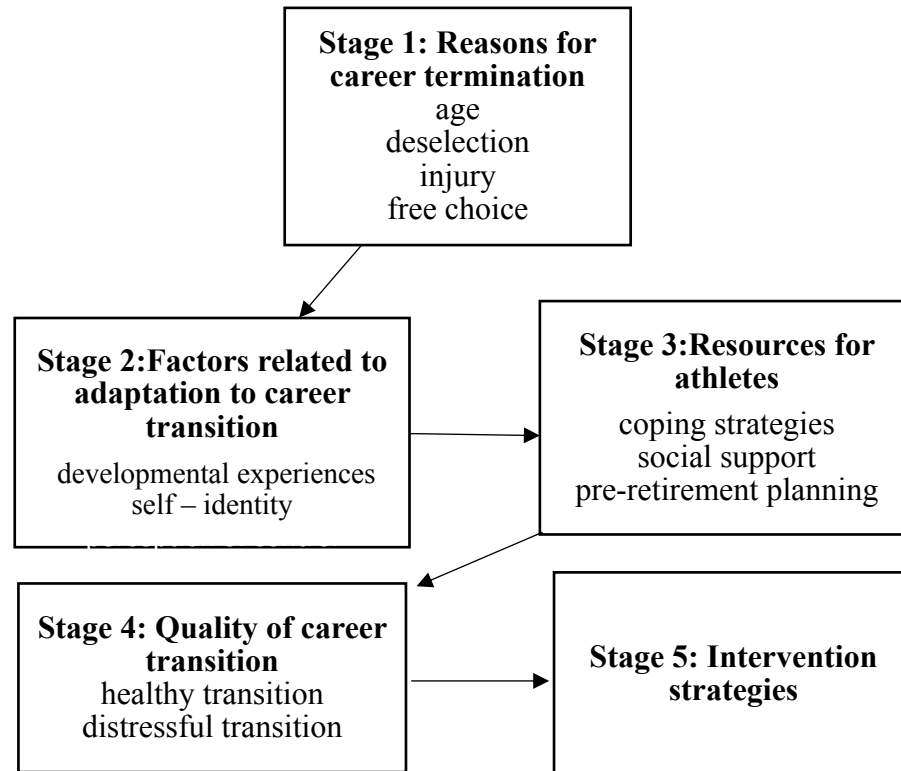


Figure 2.1. The Conceptual Model of Career Transition. This model was adopted from the model developed by Taylor and Ogilvie (1994).

Taylor and Ogilvie (1994) used the term *stages* to explain the issues that influence an athlete's transition out of sport. In the first stage, reasons for athletic retirement are identified. These reasons are important to note because these can influence psychological issues that contribute to the overall transition distress athletes experience during their transition out of sport (Lavallee, Sunghee, & Taylor, 2015). The second stage included factors that can influence an athlete's transition out of sport, such as athletic identity. A strong and exclusive athletic identity has been reported to influence an athlete's transition out of sport (e.g., Brewer et al., 1993; Cummins & O'Boyle, 2014; Houle & Kluck, 2013; Martin et al., 2014).

In the third stage, *resources for athletes*, Taylor and Ogilvie (1994) detailed strategies and coping mechanisms that can help athletes better adapt to life outside of competitive sport. One example of a healthy, recommended coping strategy for athletes who are transitioning out of sport is to finding other interests to replace sport (Pearson & Petitpas, 1990). Positive social support is another resource that can ease the transition process (Pearson & Petitpas, 1990). The value of supportive coaches, family, and friends have been identified by athletes transitioning out of sport as important factors that helped with their transition out of competitive sport (Cummins & O'Boyle, 2014). Planning for athletic retirement also has been identified as a strategy that athletes can utilize to facilitate a smooth transition out of sport and will be discussed in more detail later in this chapter (Lavallee & Robinson, 2007).

The fourth stage in this model is *quality of career transition*. An athlete's quality of transition can be defined as a healthy or unhealthy transition (Pearson & Petitpas, 1990). Athletes who experience a *healthy* transition process usually do not experience the same degree of distress as those athletes experiencing an *unhealthy* transition process. Athletes who experience an *unhealthy* transition, may experience transition distress, which can lead to difficulties adjusting

to life outside of sport, as well as social and psychopathological problems (Lavallee et al., 2015). Athletes who fail to cope with the distress they experience during their transition out of sport may need intervention strategies to improve their subjective well-being.

The fifth stage, *intervention strategies*, is dependent on whether an athlete experiences a healthy or unhealthy transition out of sport. Athletes who have failed to cope with the demands placed on them during their athletic retirement process may seek further assistance from sport psychologists and other professionals who will implement intervention strategies, to help athletes cope with the emotional, cognitive, and social distress. It has been reported that athletes who express concerns or frustrations they might be experiencing during their transition out of sport are able to cope better with any emotional distress they may experience (Lavallee et al., 2015).

Summary of Career Transition Models

Career Transition Models were examined to better understand the athletic retirement process. The three main models that have been used to explain the athletic retirement process were examined (i.e., Human Adaptation to Transition Model, Conceptual Model of Career Transition, and Athletic Career Transition Model). However, the Conceptual Model of Career Transition (Taylor & Ogilvie, 1994) was used to further understand athletes' transitions out of sport and what this process may entail. This model was developed to facilitate a smooth transition out of sport and to help athletes adapt to this transition. Taylor and Ogilvie (1994) focused on athletes and their transitions out of sport, reasons why athletes transition out of sport, and what they must cope with during their transitioning out of sport. Clarifying these factors is imperative to help facilitate a healthy, positive transition for athletes.

Reasons for Athletic Retirement

Reasons for athletic retirement seem to play a critical part in athletes' adjustment to life outside of sport, and many researchers have identified the various reasons that may cause athletes to retire from sport participation (e.g., Lavalley, Grove, & Gordon, 1997; Taylor & Ogilvie, 1994). For example, Lavalley and colleagues (1997) reported that reasons such as work commitment, loss of motivation, decreased enjoyment, etc., were the main reasons for athletic retirement. Taylor and Ogilvie (1994) identified a variety of reasons as well, such as age, injury, free choice, and deselection. (see Table 2.1). In the present study, participants retired based on one of the reasons listed by Taylor and Ogilvie (1994).

While athletes at the collegiate level can retire for any of the four reasons identified by Taylor and Ogilvie (1994), athletes in the present study were all active members on the football team. Therefore, injury, free choice, and deselection did not apply. However, it still is important to understand the reasons why athletes transition out of sport and end their competitive careers because it can influence the quality of an athlete's transition out of sport.

Participants in the present study were examined with the assumption that they would be retiring from sport due to *age*. Age was interpreted as the time period when athletes have exhausted their eligibility to compete in their sport. According to NCAA rules/regulations, athletes have five years to participate in four seasons of athletic competition before they have exhausted their NCAA eligibility (NCAA, 2017). After four to five seasons of athletic competition, most student-athletes are approximately 22 to 23 years of age. Thus, one could conclude that transitioning out of collegiate-level sport is *age-related*.

Psychological Factors that May Influence an Athlete's Transition Out of Sport

Many factors influence an athlete's transition out of sport. However, there are three main factors that were examined in the present study. These included athletic identity, career maturity, and SWB. Specifically, a strong athletic identity was examined in relation to career maturity and SWB in college level student-athletes. The review of literature below provides findings from previous studies related to these factors.

Athletic Identity and the Transition Process

Athletic identity has been defined as “the degree to which an individual identifies with the athlete role” (Brewer et al., 1993, p. 237). Researchers have studied athletic identity and reported that a strong identification with the athletic role can impact an athlete's transition out of sport (e.g., Alfermann, Stambulova, & Zemaityte, et al., 2004; Beamon, 2012; Cecić Erpic, Wylleman, & Zupancic, 2004; Lally, 2007, etc.). These researchers have examined factors such as retirement status, voluntariness of retirement, and race in relation to athletic identity.

Athletic identity and post-retirement adjustment to life. Alfermann and colleagues (2004) examined European athletes and how athletic identity influenced their transitions out of sport. A total of 256 retired athletes participated, which included German ($n = 88$), Lithuanian ($n = 65$), and Russian ($n = 103$) participants. Participants were retired from sport no longer than 10 years prior to the study and competed at a national or international level (Alfermann et al., 2004). To measure athletic identity, a shortened 5-item version of the Athletic Identity Measurement Scale (Brewer et al., 1993) was used. Adjustment to life after sport and satisfaction with life were measured with a self-developed questionnaire. Athletes reported whether they had to readjust to life after athletic retirement, and if so, they indicated how many months it took for them to adapt to life without athletic participation (Alfermann et al., 2004). Participants also rated their athletic identity “nowadays (still feeling like an athlete)” on a 5-point rating scale, 1 -

not at all to 5 - *very much*). Satisfaction with life *nowadays* was assessed with four items, and participants rated these items on 5-point Likert scales, with 1 being *not at all* and 5 being *very much*. High athletic identity levels resulted in less positive retirement process and that planning for athletic retirement significantly contributed to an overall higher satisfaction with life (Alfermann et al., 2004).

The relationship between athletic identity and athletic retirement also was examined in six student-athletes from a large Canadian university (Lally, 2007). This university was comparable to a NCAA Division II university in the U.S. Participants were recruited from four sports whose seasons were similar and that both men and women had the opportunity to play. They needed to be in their fourth or fifth year of eligibility which limited the number of athletes recruited to participate in the study. Three one-on-one, in-depth interviews were conducted. One was at the start of the participants' last season of competition. The second was held one month after their retirement and the third was one year later. Participants were asked open-ended questions while the interviewer took extensive notes. They were asked questions such as, "Tell me about your sport experiences here," or "Tell me more about what you meant when you said you will never compete at this level again?" and "What did you mean when you said, 'I was ready to move on?'" Lally (2007) chose this method, because researchers examining athletic retirement have encouraged the use of qualitative methods to examine the athletic retirement process (e.g., Brown & Hartley, 1998; Kerr & Dacyshyn, 2000; Lally & Kerr, 2005). The researcher also expressed her concerns with using a structured interview guide because of its failure to accurately capture participants' experiences. Participants were strongly committed to their athletic goals and were expecting their athletic identities to be disrupted upon retirement from their sport. As a result, participants engaged in coping strategies prior to athletic retirement,

such as trying to lessen their athletic identities prior to retirement (Lally, 2007). All the participants, with one exception, made a smooth transition process.

Involuntary retirement from sport. To examine the relationship between athletic identity and the retirement process, Cecić Erpic and colleagues (2004) examined the athletic identity levels of 85 former elite Slovenian athletes. They hypothesized that “an involuntary and abrupt sports career termination, a lower evaluation of sports achievements, the lack of a post-sports life planning, and a low athletic identity would lead to a more difficult sports career termination process” (Cecić Erpic et al., 2002, p. 49). All the participants in this study were recently retired athletes and had been retired for longer than 1 year, but less than 4 years. Participants completed two questionnaires: The Sports Career Termination Questionnaire (SCTQ) and the Non-Athletic Transitions Questionnaire (NATQ). Results indicated that factors such as involuntary retirement from sport as well as athletic identity played a significant role in the transition out of sport. The participants who strongly identified with their athletic role experienced more psychological difficulties during their transition process than the participants who did not identified as strongly with the role of an athlete. Athletes who reported having achieved fewer athletic goals than expected experienced more psychological difficulties than those who had achieved more goals such as low self-esteem, lack of self-confidence, loneliness, etc. Cecić Erpic and colleagues (2002) concluded that difficulties during the athletic retirement process depended on “voluntariness of career termination, subjective evaluation of athletic achievements, and prevalence of athletic identity” (p. 57).

Race and athletic identity. In her study, Beamon (2012) examined identity foreclosure in 20 Black, D-I athletes who recently retired from sport. Identity foreclosure occurs when one has not been exposed to or engaged in exploratory behavior, such as career exploration, talent

development, or joining social clubs or interest groups. In contrast to the findings of smooth transitions out of sport, Beamon (2012) reported that the Black participants in her study did not experience a smooth transition out of sport due to their exclusive athletic identities. These athletes expressed that they struggled to redefine their identities. However, researchers such as Lally (2007) reported that participants were able to form new identities without difficulty.

Black male athletes, especially athletes who play football and basketball, have been reported to identify more strongly with their athlete role compared to other races due to social and environmental influences, such as family, peers, media, and community (Beamon, 2012). While this is not a problem that only Black athletes face, findings from the study conducted by Beamon (2012), as well as other researchers (e.g., Beamon, 2008; Beamon & Bell, 2006; Harrison et al., 2011) have confirmed that Black athletes are more likely than White athletes to view sport as the focal point of their lives (Beamon, 2012).

Participants included Black, White, and Other male football athletes. Thus, it is important to note that previous researchers have reported that Black football athletes identify more with their role as an athlete than members of other races (Beamon, 2012). Due to these findings, athletic identity scores of Black, White, and Other athletes were compared to further examine the possible relationship between athletic identity and race.

Career Maturity and the Transition Process

Career maturity has been defined as, “the extent to which an individual has acquired the necessary knowledge and skills to make intelligent, realistic career choices” (Levinson, Ohler, Caswell, & Kiewra, 1998, p. 475). Career maturity is another factor that can influence an athlete’s transition out of sport and has been reported to be influenced by athletic identity.

Many researchers have studied the relationship between career maturity and athletic identity (Brown & Hartley, 1998; Houle & Kluck, 2015; Murphy, Petitpas, & Brewer, 1996; Tyrance, Harris, & Post, 2013). In most studies, researchers have reported that athletes with high levels of athletic identity tended to have low levels of career maturity (Houle & Kluck, 2015; Murphy et al., 1996; Tyrance et al., 2013). Athletes with a strong and exclusive commitment to their sport have been reported to be less prepared for life after sport than athletes who are less invested in their athletic role (Baillie & Danish, 1992; Pearson & Petitpas, 1990). Student-athletes have expressed a lack of time and/or interest to plan for a career outside of sport because they view this as a threat to their athletic identity and their dreams of becoming professional athletes (Fuller, 2014; Tyrance, et al., 2013). It also has been reported that “the competing demands of school and sport...may have reduced time for academic and career planning potentially limiting [athletes’] successful transition[s] out of sport” (Bjornsen & Dinkel, 2017, p. 245).

Career maturity and self-identity variables. In their study, Murphy and colleagues (1996) examined the relationship among self-identity variables (i.e., identity foreclosure and athletic identity) and career maturity. These factors were examined in relation to gender, playing status (i.e., varsity vs. non-varsity), and sport (i.e., revenue vs. nonrevenue). Participants included 124 intercollegiate student-athletes at a NCAA D-I university (Murphy et al., 1996). To assess self-identity variables and career maturity, participants completed the Foreclosure subscale of the Objective Measure of Ego-Identity Status, the Athletic Identity Measurement Scale, and the Attitude scale of the Career Maturity Inventory.

Murphy and colleagues (1996) concluded that self-identity variables such as athletic identity were negatively correlated to career maturity. They also concluded that athletes in

revenue-producing sports (e.g., basketball, football, and ice hockey) had significantly lower career maturity scores than athletes in nonrevenue-producing sports. These findings suggest that a strong identification with the athlete role and failure to explore alternative interest outside of sport will lead to delayed career development.

Career maturity in relation to athletic identity. Brown and Hartley (1998) examined the relationship between career maturity and athletic identity. Participants included 114 athletes from five different NCAA D-I and D-II universities. There were members from the football team ($n = 90$) and men's basketball team ($n = 24$). Participants were NCAA Division I ($n = 66$) and II ($n = 48$) athletes recruited from all four years at a university (i.e., 37 freshmen, 24 sophomores, 25 juniors, and 28 seniors). This is similar to the present study, which investigated the relationship between career maturity and athletic identity levels in student-athletes from all years in school from two different NCAA Divisions (i.e., D-I and D-III athletes). Participants completed the Career Development Inventory to measure career maturity, and the Athletic Identity Measurement Scale to assess athletic identity. There was no evidence that athletic identity and career maturity were related to NCAA Division (Brown & Hartley, 1998). There also was no evidence that year in school influenced athletic identity or career maturity either. Brown and Hartley (1998) proposed their findings were not significant because complex aspects such as athletic identity and career maturity should be explored using qualitative methods. These reports influenced Lally and Kerr (2005) to use qualitative methods to examine the relationship between career maturity and athletic identity.

To gain a more in-depth understanding of the relationship between athletic identity and career maturity, Lally and Kerr (2005) held interviews with the student-athletes in the study. Participants were in their fourth or fifth year of NCAA eligibility and they attended two

retrospective interviews held by Lally and Kerr (2005). The first interview was held six months before graduation and the second interview was one month prior to graduation (Lally & Kerr, 2005). The participants reported that their career plans increased, and their athletic identity decreased over the course of their university studies (Lally & Kerr, 2005). Similar to Brown and Hartley (1998), Lally and Kerr (2005) failed to observe a relationship between athletic identity and career maturity. They also reported that student-athletes had stronger identifications with their roles as athletes during their first and second years in school but form a closer identification to their role as a student during their later years in school.

In a more recent study, Tyrance, Harris, and Post (2013) reported that there was a relationship between career maturity and athletic identity. They also examined an athlete's expectation to play professionally, and the influence race, gender, and sport had on the relationship between career maturity and athletic identity. Tyrance and colleagues (2013) hypothesized that these factors would be inversely related to career maturity. Participants included 538 student-athletes from four Division I universities. To measure athletic identity, the participants completed the Athletic Identity Measurement Scale, and to assess career maturity participants completed the Career Futures Inventory. The researchers reported that there was a negative relationship between career maturity and athletic identity. Student-athletes with higher athletic identity levels had lower levels of career maturity. Tyrance and colleagues (2013) also reported that student-athletes who participated in revenue producing sports such as football and basketball had lower levels of career maturity. These findings contradict previous findings; however, new factors such as one's expectation to play professionally and revenue vs. nonrevenue sports were examined.

Houle and Kluck (2015) also have reported a negative relationship between athletic identity and career maturity. They examined how athletic identity and career maturity were influenced by scholarship status, self-efficacy – in relation to career decision-making – and the belief of financial sustainability through professional sport. Participants ($N = 221$) included student-athletes from a variety of teams from a D-I university. The sample included student-athletes who were freshmen to seniors in college, as well as fifth-year student-athletes. Participants completed the Athletic Identity Measurement Scale and the Career Decision Scale, as well as the Career Decision Self-Efficacy Scale—Short Form. Houle and Kluck (2015) reported that athletic identity was negatively correlated with career maturity. They indicated that high career decision-making self-efficacy was associated with high career maturity, as well as year in college. Houle and Kluck (2015) did not find a relationship between career maturity, high athletic identity and lower levels of career decision-making self-efficacy. However, they did report that high athletic identity was associated with having a scholarship and the belief that that one could sustain him/herself financially with a career as a professional athlete (Houle & Kluck, 2015).

Subjective Well-Being and the Retirement Process

Subjective well-being (SWB) is another factor that has been reported to influence the success of an athlete's transition out of sport. Like career maturity, a negative relationship has been reported between athletic identity and SWB (e.g., Grove et al., 1997; Weigand et al., 2013). Many researchers have studied how transitioning out of sport impacts SWB as well as the relationship between SWB and athletic identity (e.g., Grove et al., 1997; Martin, Fogarty, & Albion, 2014; Stambulova, Stephan, & Ja'phag, 2007). The following review of literature details

these studies and studies related to the two components of SWB (i.e., satisfaction with life and mood).

Subjective well-being and athletic identity. Grove and colleagues (1997) analyzed how athletes cope with the transitions out of sport. They examined the relationship between athletic identity and the quality of adjustment to retirement. Participants ($N=48$) included retired female ($n = 28$) and male ($n = 20$) athletes from various Australian teams. Most of the participants had competed at their highest level of sport for at least 6 years. They also had retired around the age of 25 years old and had been retired for at least 3 years at the time of the study (Grove et al., 1997). Participants completed the Athletic Identity Measurement Scale (Brewer et al., 1993), the COPE inventory (Carver et al., 1989), and a variety of questions regarding their adjustment to retirement (Grove et al., 1997). It was reported that athletic identity was positively related to the quality of adjustment to retirement. Grove and colleagues (1997) also concluded that athletes who experienced a poor adjustment to retirement utilized a variety of coping mechanisms during their athletic retirement process to ease their transition out of sport.

In a later study, Stambulova, Stephan, and Jařphag (2007) examined the relationship between subjective well-being and athletes' transitions out of sport. They also examined the impact *preconditions* related to the transition process had on overall well-being. Preconditions included, "athletic identity during the sports career; satisfaction with the career; reasons for termination; retirement planning; voluntary/involuntary retirement; timing of termination" (Stambulova et al., 2007, p.107). Researchers were interested in athletic identity levels because they believed it would be a barrier for athletes trying to successfully cope with their transitions out of sport. Participants included 157 former French and Swedish athletes who completed The Retirement from Sports Survey and answered questions pertaining to the precondition related to

athletic retirement (previously listed). Stambulova and colleagues (2007) reported that athletic retirement led participants to experience negative, emotional reactions such as emptiness, sadness, and uncertainty (Stambulova et al., 2007). Participants indicated that specific strategies such as accepting retirement, decreased levels of athletic identity, trying to determine if retirement was a positive situation, and pre-retirement planning helped to ease their transition process. These results further support the claim that a strong athletic identity and subjective well-being are negatively correlated. Stambulova and colleagues (2007) findings also demonstrate the relationship between athletic retirement and satisfaction with life, which has been identified as a component of subjective well-being in the current study.

Satisfaction with life. One's positive evaluation of their life has been defined as satisfaction with life (Pavot, Diener, Colvin, & Sandvik, 1991). In the present study, SWL has been identified as one of the two major components of SWB. Mood is the second component of SWB, which will be reviewed in a subsequent portion of this review. Researchers exploring the impact of retirement on an athlete's SWL have produced mixed results. For example, Werthner and Orlick (1986), who examined 28 retired elite-level Canadian athletes, reported a decline in SWL following retirement from sport. In contrast, Sinclair and Orlick (1993) reported, in their study with 199 retired elite-level athletes, that 74% of the participants were satisfied with their lives post-retirement from sport. In another study of 48 former Australian athletes, Lavalley, Grove, and Gordon (1997) reported that elite-level athletes who involuntarily retired from their sporting careers were more likely to experience greater difficulties than those who retired voluntarily.

In a more recent study, Martin and colleagues (2014) examined 62 Australian athletes ($n = 45$ females; $n = 17$ males) and the relationship between SWL and athletic identity. They

examined changes in SWL and athletic identity over time in relation to athletes' retirement status and their voluntariness of retirement decisions (Martin et al., 2014). Three different groups of athletes were observed over a 5-year period, starting in 2003 to 2007. One group was active in competitive sport throughout the study, a second group was active at the start of the study but had retired by the end, and a third group was active at the start of the study and indicated that they planned to retire by the end of the study (Martin et al., 2014). The two groups that retired/were planning to retire were further separated based on whether their retirement was voluntary or involuntary. These three groups were eventually labeled as *continuing*, *retired*, and *intending* (Martin et al., 2014). Participants completed the 10-item Athletic Identity Measurement Scale (Brewer et al., 1993) to measure athletic identity levels and the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) to measure satisfaction with life. Participants were asked about their intention to retire from their sport in both 2003 and 2007 and if they planned to retire from their sport within the next one to four years.

Martin and colleagues (2014) reported that athletic identity levels of all three groups declined over the period of the study (Martin et al., 2014). The researchers in this study wanted to know whether an athlete's retirement status (i.e., continuing participation, retired, or intending to retire) facilitated this decline. Martin and colleagues (2014) reported that athletes who indicated that they were planning to retire from sport within the next 4 years (i.e., the intending group) had lower levels of athletic identity than athletes who indicated that they had no intentions of retiring (i.e., the continuing group). They also reported that athletes planning to retire from sport displayed lower levels of athletic identity. Martin and colleagues (2014) indicated that during the second testing session (i.e., in 2007) SWL was reported to be negatively related to athletic identity. These findings support previous researchers who have reported that

high athletic identity may be associated with adjustment difficulties, which can decrease SWL (e.g., Brewer et al., 1993). There was an increase in SWL for participants in the retired group (Martin et al., 2014). Participants in the retired group who had experienced a positive adjustment to post-sport life identified pre-transition planning as a key factor that aided in their smooth transition process.

The findings by Martin and colleagues (2014) suggest that planning for athletic retirement combined with decreases in athletic identity can lead to an increase in SWL. These results emphasize the importance of athletes planning for their retirement from sport. Martin and colleagues (2014) reported that athletic identity levels were lower in athletes who anticipated and planned for their retirement from sport. Previous researchers have stated that a strong athletic identity resulted in athletes experiencing distress and difficulties coping with this transition process (e.g., Alfermann & Stambulova, 2007; Fuller, 2014; Lally, 2007; Verkooijen et al., 2012). Thus, athletes who plan for their retirement from sport are more likely to experience a smoother transition compared to athletes who do not, which will ultimately increase athletes' SWL (Cummins & O'Boyle, 2014; Pearson & Petitpas, 1990; Schlossberg, 1981).

Mood. Another major component of subjective well-being is mood (Berger, Weinberg, & Eklund, 2015; Diener et al., 1985). Retirement from sport can influence an athlete's mood as he or she attempts to cope with the many challenges and changes that accompany athletic retirement (Cosh, Crabb, LeCouteur, & Kettler, 2012; Giannone et al., 2017; Grove, Lavalley, & Gordon, 1997). Such challenges and changes may lead to an increased risk for developing negative psychological symptoms following their retirement from sport (Giannone et al., 2017; Yang et al., 2007). It has been reported that athletes can experience extreme difficulty transitioning out of sport, as evidenced by increased stress, depression, and anxiety. (Giannone et al., 2017; Park,

Lavallee, & Tod, 2012; Weigand, Cohen, & Merenstein, 2013). However, not many factors that contribute to these psychological problems among college athletes have been examined.

A strong athletic identity has been identified as a key deterrent to athletes trying to cope with sport retirement and can lead to undesirable mood states in these athletes (e.g., Brewer, Van Raalte, & Linder, 1993; Giannone et al., 2017). Athletes who are involved solely in their sport (without much exploration of other interests) may develop a *confined identity*, “that can limit adaptive responses to life challenges, thereby contributing to psychosocial problems in retirement” (Giannone et al., 2017, p. 598). Thus, athletes who strongly identify with their athletic roles may be prone to experiencing undesirable mood levels upon retirement from sport (Giannone et al., 2017; Grove et al., 1997; Weigand et al., 2013).

Investigating a possible relationship between athletic identity and mood, Weigand and colleagues (2013) examined depression levels in former ($n = 163$) and current ($n = 117$) college athletes from nine Division I universities. The researchers hypothesized that loss of identity and lifestyle changes during ones transition out of sport would put athletes at an increased risk for depression (Weigand et al., 2013). Participants completed a survey online that included questions regarding the athletes’ college sport experiences. The survey also included the Wakefield Depression Scale, which measured levels of depression. The researchers reported that depression levels were higher in current student-athletes in college than athletes who recently retired from sport (Weigand et al., 2013).

Mood in relation to athletic identity also examined by Giannone, Haney, Kealy, and Ogrodniczuk (2017) who examined depression and anxiety symptoms among varsity athletes. Their study was the first study to examine the influence of athletic identity on depression and anxiety levels in athletes retiring from sport. Participants included varsity athletes ($N = 72$) from

five Canadian universities who were all in their final year of sport participation. The researchers hypothesized that a stronger athletic identity would be correlated to higher levels of depression and anxiety following retirement from sport participation (Giannone et al., 2017). Participants completed the Athletic Identity Measurement Scale, the State Anxiety subscale of the State-Trait Anxiety Inventory, and the Center for Epidemiologic Studies-Depression. Although athletic identity was not related to state anxiety before athletic retirement, symptoms of anxiety and depression were prevalent post-retirement. These findings provide support that the strength of the athletic role can be associated with symptoms of depression and anxiety post-retirement from sport (Giannone et al., 2017).

Summary

This chapter focused on the process athletes experience during their transitions out of sport. Through a review of literature, the evolution of research on athletic retirement was presented, and models related to career transitions were highlighted. Specifically, the Conceptual Model of Career Transition (Taylor & Ogilvie, 1994). With this model, Taylor and Ogilvie (1994) detailed reasons for athletic retirement, factors related to adaption to career transition, resources athletes can utilize to help facilitate a positive transition out of sport as well as intervention strategies that are available for athletes. In addition to the transition models, reasons for athletic retirement as well as the factors that can influence the transition out of sport were examined.

In the current study, athletic identity, career maturity, and subjective well-being were examined because they have been reported to influence an athlete's transition out of sport (e.g., Alfermann & Stambulova, 2007; Fuller, 2014; Heird & Steinfeldt, 2013; Pearson & Petitpas, 1990; Houle & Kluck, 2015; Tyrance, Harris, & Post, 2013). Athletes who strongly identify with

their sport are less likely to plan for athletic retirement (Brown et al., 2000). This is problematic because athletes who strongly identify with their sport also have higher than average expectations of playing professionally, which leads to transition distress and an overall poor transition process (Fuller, 2014). Therefore, these athletes are more likely to have lower levels of career maturity and overall decreased levels of subjective well-being.

It is important to review and discuss ways to help athletes experience positive transitions because ending one's athletic career affects many athletes each year at every level. Finding ways to help athletes successfully cope with their transition out of sport has become a growing interest in the field of sport psychology, mainly due to the increased number of athletes seeking support and assistance during their transition out of sport (Brownrigg, Burr, Locke, & Bridger, 2012).

CHAPTER III. METHOD

Participants

Members from two NCAA Division football teams in Ohio volunteered to participate in the current study. Participants were from Bowling Green State University, a NCAA Division I (D-I) university, and from the University of Mount Union, a NCAA Division III (D-III). Initially, there was a total of 105 male football players. However, due to high social desirability scores (i.e., 10 or above out of 13), 12 participants were excluded from the study. This included four participants from the D-I university and eight from the D-III university. Thus, the final number of participants was 93.

Participants were 18 years of age or older. At the D-I university, there were 46 participants who ranged in age from 18 to 24 years ($M = 21$, $SD = 1.5$). At the D-III university, there was a total of 47 participants who ranged in age from 18 to 23 years. At both universities, freshmen and sophomore participants were grouped as lower classmen. While junior and senior participants, as well as 5th-year student-athletes, were grouped as upper classmen. There were more lower classmen participants compared to the upper classmen at both universities (see Figure 3.1).

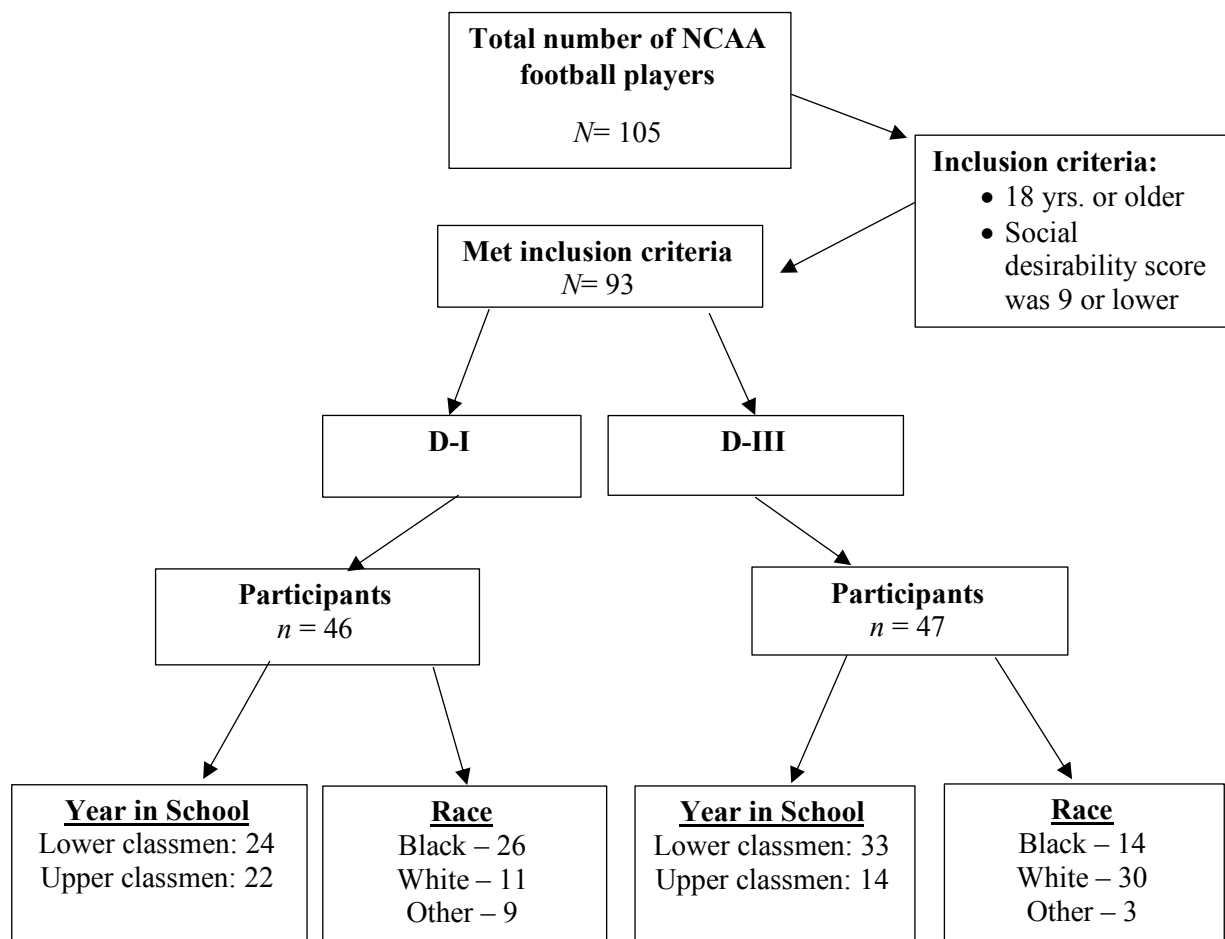


Figure 3.1. Participant Characteristics.

Since no participants at either university self-identified as Asian, athletes were represented by the following three racial categories: Black, White, and *Other*. *Other* included self-described specific nationalities and races such as Pacific Islander or mixed (e.g., Black and Asian, or Black and White). At the D-I university, more than half of the participants reported that they were Black, while only a quarter of the participants identified as Black at the D-III university. In addition, few participants (n 's = 9 and 3, respectively at each university) self-identified as *Other*. See Figure 3.1 for participants' demographic characteristics.

Measures

A total of seven inventories were used to gather information about the participant and to measure the select factors of athletic identity, career maturity, and subjective well-being (see Appendices A to G. Subjective well-being was examined through satisfaction with life and mood. Therefore, measures were used to examine these two factors, instead of subjective well-being.

Demographic Inventory

A 14-item Demographic Inventory was developed to gather descriptive information about the participants (see Appendix A). The Inventory included questions regarding age, race/ethnicity, GPA, academic year in college, etc. The information gathered from this inventory was used to examine potential differences between D-I and D-III athletes and to further understand the relationship between the select factors of athletic identity, career maturity, and subjective well-being.

Mood

The Profile of Mood States (POMS) was used to assess mood traits (McNair, Lorr, & Droppleman, 1992). Instructions for the POMS prompt participants to describe how they have

been feeling in the past week, including the present day (McNair et al., 1992). However, in the present study, instructions were changed from the *past week* to the *past month* to measure athletes' general mood traits (see Appendix B). The POMS is comprised of 65-items, which are rated on a five-point scale (i.e., 0 - *not at all* to 4 - *extremely*). The POMS includes six subscales, which represent the different dimensions of mood. These include Tension, Anger, Vigor, Fatigue, Depression, and Confusion (McNair et al., 1992). Bourgeois, LeUnes, and Meyers have (2010) reported high internal consistency of the POMS with subscales ranging from a low of .79 (Confusion) to a high of .93 (Depression).

Satisfaction with Life

The Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen & Griffin, 1985) was used to measure satisfaction with life (see Appendix C). This 5-item inventory was scored on a 7-point Likert scale: 1 (strongly disagree) to 7 (strongly agree). Possible scores ranged from 5 to 35. Scores between 5 and 9 indicated levels of extreme dissatisfaction with life, and scores between 31 to 35 indicated extreme satisfaction with life (Diener et al., 1985). This questionnaire has been used and validated in a variety of studies. Diener and colleagues (1985) reported a coefficient alpha of .87. In more recent studies it has been reported that coefficient alphas ranged between 0.87 and 0.86 for the SWLS (e.g., Adler & Fagley, 2005; Steger, Frazier, Oishi, & Kaler, 2006).

Social Desirability

The Reynolds Short Form of the Marlowe–Crowne Social Desirability Scale (Reynolds, 1982) was used to measure social-desirability. See Appendix D. The three abbreviated versions of the Marlowe–Crowne Social Desirability Scale include a 13-item, 12-item and an 11-item scale. The 13-item scale was used in the current study, because it has been identified as “a viable

substitute for the regular 33-item Marlowe-Crowne scale” (Reynolds, 1982, p. 119). Participants were instructed to answer each item as true or false based on their own personal traits. Example items included the following: *I am always courteous, even to people who are disagreeable*, and *I sometimes try to get even rather than forgive and forget*. Each item was worth one point and thus, possible scores ranged from 0 to 13. Participants who displayed high social desirability scores, which was indicated by a score above 9, were excluded. Ten was chosen as the cut off score, because it was reported that high social desirability scores are near the top 1/3 or 1/4 of scores (LaRowe et al., 2004). Thus, in the present study, 9.75 represented the top 75th percentile of social desirability scores, which was rounded to 10.

Career Maturity

The Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koschier, 1976) was used to assess career maturity (see Appendix E). Participants responded to the 18-items using a 4-point scale (4 being *exactly like me* to 1 being *not at all like me*). Sample questions included, *I feel discouraged because everything about choosing a career seems so ‘ify’ and uncertain; I feel discouraged, so much so that I’d like to put off making a decision for the time being or I thought I knew what I wanted for a career, but recently I found out that it wouldn’t be possible for me to pursue it. Now I’ve got to start looking for other possible careers.*

The CDS encompasses two subscales. The first subscale is the Certainty Scale, which includes items 1 and 2. The second subscale is the Career Indecision Scale, which includes item numbers 3 to 18. Possible scores on the Certainty Scale ranged from 2 to 8, and possible scores on the Career Indecision Scale ranges from 16 to 64. Together, these subscales provided a measure of career maturity, with higher scores indicating lower career maturity (Houle & Kluck, 2015). Based on previous literature, only items 3 to 18 were scored and included in the final

score for career maturity (e.g., Slanly et al., 1981; Osipow et al., 1976). It is important to note that in the present study, items 3-18 were scored in a reverse order. As the result of reversing the test scores, a high score on the Career Indecision Scale in this study reflected a high level of career maturity.

Athletic Identity

The Athletic Identity Measurement Scale (AIMS) was used to assess the strength and exclusivity of the participants' identification with the athlete role (Brewer & Cornelius, 2001). This 7-item scale is an abbreviated version of the original 10-item scale (Brewer, Van Raalte, & Linder, 1993). Three items were excluded from the original 10-item scale due to poor performance in a factor analysis (Brewer & Cornelius, 2001). Participants responded to items using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Sample items include, *I consider myself an athlete*, *Sport is the most important part of my life*, etc. Possible scores ranged from 7 to 49, with higher scores indicating a stronger degree of identification with the athletic role. Houle and Kluck (2015) reported that the abbreviated, 7-item version of the AIMS was internally consistent ($\alpha = .81$) and highly correlated with the original 10-item scale (see Appendix F).

The Mathews' Questionnaire

A self-developed questionnaire referred to as the Mathews' Questionnaire was administered to the participants at the end of the testing sessions (see Appendix G). This questionnaire included nine questions and participants' responses were specific to their own experiences related to their future transitions out of sport. The questions were based on the interview questions used by Cummins and O'Boyle (2015), who examined recently retired male student-athletes and their experiences during their transition out of sport. Examples of questions

from the Mathews' Questionnaire included the following: *Do you plan to continue your sport after graduation? If you were to transition out of sport at the end of this football season, what are 3 things that you feel would help you the most during your transition process?* Data collected from this questionnaire can be used to guide further research on this topic.

Procedure

Gaining permission to test student-athletes at each university was a multifaceted process. Required materials were submitted to the Institutional Review Board (IRB) at the D-I university. Simultaneously, required documents were submitted to the Intercollegiate Athletics Advisory Committee (IAAC), which is a sub-committee of the Intercollegiate Committee on Athletics at the D-I university. The IAAC reviewed the submitted materials and then provided its approval of the study to the IRB. Following the Committee's approval, the IRB then provided approval to conduct the study. After the needed approvals were obtained at the D-I university, required materials were submitted to the IRB at the D-III university. Shortly after this submission, the IRB at UMU provided their approval for testing athletes.

Following approval at each university, members of the football teams were contacted via email and invited to participate in the study. (See Appendices H and I.) The email included information about the specific locations and times where the principle investigator would be conducting testing sessions. In addition, athletes at both universities were verbally recruited on the testing days and encouraged to participate.

Interested athletes signed a consent form and then completed a series of measures. These measures were completed in the same sequence at both universities. A demographic inventory was completed first, then the POMS. This measure was second in an attempt to prevent subsequent inventories from influencing participants' mood characteristics. Participants then

completed the Satisfaction with Life Scale because together, mood and satisfaction with life provided a measure of subjective well-being. Next, the Social Desirability Scale was then completed, then the Career Decision Scale, and the Athletic Identity Measurement Scale. Participants completed the Mathews' Questionnaire last in the sequence of seven inventories. Note, these inventories are included in the Appendices in the order in which these were administered. (See Appendices A to G.)

NCAA D-I University

Testing at BGSU occurred approximately three weeks before the end of the spring semester. The investigator and trained research assistants tested members of football team outside of Student-Athlete Services during the time members of the football team were assigned to complete study hall hours. Team members were asked to participate as they entered or prepared to leave the Student-Athlete Services office area.

Members of the team were informed that participation in this study was voluntary and that any data collected would be confidential. After reading the consent form, athletes decided whether to participate (see Appendix J). If they were willing to participate, athletes signed an informed consent form. This indicated that they were willing to participate and that they were 18 years of age or older. Subsequently, participants completed the seven inventories. Participation in this study required approximately 30 to 45 minutes, and team members were asked not to talk to one another during the testing sessions. All inventories were distributed and collected individually by the researcher and research assistants. After participants completed the inventories, they were provided personal copies of the informed consent form.

NCAA D-III University

Following data collection at the D-I university, the investigator and the same research assistants traveled to the D-III university to test members of the football team. This occurred during the last week of the spring semester. The researchers tested athletes at the Gulling Training Center, a workout facility for varsity athletes at UMU. Following their workout sessions, participants were recruited to participate in the current study. After signing the informed consent form (see Appendix K) file folders that included all of inventories were distributed to the participants. They completed the inventories at their own pace and were provided detailed directions. Participants were encouraged to ask for help if they had any questions while completing the inventories. The investigator and her research assistants walked throughout the testing area and made certain participants were able to complete the inventories. Again, the participants completed all the inventories within 30 to 45 minutes.

Statistical Analysis

The purpose of the current study was to examine the differences among Athletic Identity, Career Maturity and Subjective Well-Being (i.e., Satisfaction with Life and Mood) in collegiate-level football players. Specific categorical variables included NCAA Division (i.e., Division I and III), Year in School, Race, and GPA. Year in School was separated into upper (Junior and Senior) and lower (Freshmen and Sophomore) classmen. Fifth year athletes were combined with the upper classmen.

The basic statistical analysis used in this study was a 2 (Division) x 2 (Year in School) analysis of variance (ANOVA). These ANOVAs were used to examine the differences between NCAA Division and Year in School with Athletic Identity, Career Maturity, and Satisfaction with Life in college football athletes. To analyze the Mood scores which reflected subjective

well-being, a 2 (Division) x 2 (Year in School) multivariate analysis of variance (MANOVA) was used to examine the six POMS subscales. The Statistical Package for the Social Sciences (IBM SPSS Statistics, Chicago, IL, USA) version 24 was used to analyze the following hypotheses:

1. Athletic Identity will be higher/stronger for D-I than for D-III athletes and will be higher/stronger for upper classmen athletes than for lower classmen athletes. To test this hypothesis about whether NCAA Division and Year in School made a difference in Athletic Identity, a 2 (Division) x 2 (Year in School) ANOVA was employed.
2. Athletic Identity will be higher in football players in both Divisions I and III athletes and upper and lower classmen who score low on career maturity. A 2 (Division) x 2 (Year in School) x 2 (Career Maturity) ANOVA was used to analyze the differences in Athletic Identity in student-athletes. A median split was used to distinguish between high and low scores on Career Maturity.
3. Athletic Identity scores will be higher in athletes who are Black in comparison to other Races. A 2 (Division) x 2 (Year in School) x 3 (Race) ANOVA on Athletic Identity scores was conducted to test this hypothesis.
4. Career Maturity scores will be higher for D-III and upper classmen football players than D-I and lower classmen players. A 2 (Division) x 2 (Year in School) ANOVA was used to analyze the relationship of Year in School and Division to Career Maturity.
5. GPAs will be lower in athletes who have higher levels of Athletic Identity and in D-I athletes. To test this hypothesis, a 2 (High/Low Athletic Identity) x 2 (Division) ANOVA was conducted on GPAs. A median split was used to distinguish between high and low scores for Athletic Identity.

6. Satisfaction with Life scores will be higher in football players who score lower in Athletic Identity than those who score high, and higher in D-III football players than D-I athletes. A 2 (High/Low Athletic Identity) x 2 (Division) ANOVA was used to analyze Satisfaction with Life.
7. Mood scores will be more desirable in football players who score lower on Athletic Identity than those who score high, and more desirable in D-III football players than D-I athletes. A 2 (High/Low Athletic identity) x 2 (Division) MANOVA was used to examine possible differences in mood on the six Profile of Mood State (POMS) subscales. Appropriate follow-up statistical tests were conducted if significant main effects were found.

CHAPTER IV. RESULTS

Athletes' transitions out of sport is a complex process and include multiple factors. Specific factors investigated in this study of D-I and D-III football players included the effects of differences in Athletic Identity on Career Maturity and Subjective Well-Being. Additional factors examined in these comparisons included NCAA Division, Year in School, Race, and GPA. Although many researchers have studied transition out sport, few researchers have assessed the relationships among these factors. In this chapter, the influence of each factor will be examined.

Demographic Characteristics

A 14-item demographic inventory was developed to provide descriptive information such as age, GPA, and race, about the participants. As illustrated in Table 4.1, participants from both universities were similar in age and reported similar GPAs. The researcher expected the D-III athletes to report higher GPAs than the D-I athletes. D-III universities tend to have shorter practices and playing seasons, which reduces time away from academic studies (NCAA, 2015). However, the D-I participants' relatively high GPAs could reflect a variety of influences, including the fact that the D-I university had an academic advising staff who worked specifically with student-athletes.

Table 4.1

Participants' demographic characteristics

Variables	NCAA D-I		NCAA D-III	
	Mean	SD	Mean	SD
Age in Years	21.0	1.5	20.0	1.1
GPA	3.1	0.5	2.9	0.6
Year in School	2.4	1.3	1.9	0.9

Participants also indicated their year in school (see Table 4.1). Year in school was grouped with the numbers 1 and 2 representing freshman and sophomore athletes (i.e., lower classmen), and 3 to 5 representing juniors, seniors, and 5th year athletes (i.e., upper classmen). At the D-I university, 52% of the participants were lower classmen (24/46). The mean score of 2.4 for Year in School reflects the number of athletes in year 3, year 4, and year 5 (see Table 4.2). In contrast at the D-III university, 70% of the participants were lower classmen (33/47). The mean score of 1.9 reflects the preponderance of athletes in years 1 and 2 (see Table 4.2). Overall, more participants at both universities were in years 1 and 2 than in years 3 to 5 as reported in Table 4.1 and 4.2.

Table 4.2

Participants' year in school

Variables	NCAA D-I <i>n</i>	NCAA D-III <i>n</i>
Year in School		
1 (Freshman)	13	20
2 (Sophomore)	11	13
3 (Junior)	11	11
4 (Senior)	8	3
5 (5 th year Senior)	3	0

Note. Years 1 and 2 athletes were grouped as lower classmen and athletes in years 3 to 5 were grouped as upper classmen.

Race was another variable that participants reported in the Demographic Inventory. There were four categories of self-reported race, which included Black, White, Asian, and *Other*. Since no participants identified as Asian, only three categories of race were examined. At the D-I university, more than half (26/46) of the athletes reported that they were Black compared to the other Races. Only 30% (14/47) of the participants at the D-III university identified as Black. (See Table 4.3).

Table 4.3

Demographic characteristics: Race

Race	NCAA D-I (<i>n</i> = 46) Percentage	NCAA D-III (<i>n</i> = 47) Percentage
Black	56.5%	29.8% *
White	23.9%	63.8% **
Other	19.6%	06.4%

Note. * $p < .10$, ** $p < .05$. The percentages of the three self-identified categories of Race are also provided in Table 2.

A Pearson Chi-square test was calculated comparing frequency of Race in Divisions I and III. A significant interaction was found ($\chi^2 (2) = 11.26, p = .004$). The three categories of Race differed significantly at the two Divisions. Due to the low number of athletes who identified as Other, subsequent analyses included two racial categories. Results of a Chi-square analysis comparing Black athletes at the two Divisions revealed a significant effect ($\chi^2 (1) = 3.60, p = .056$). At the D-I university, there were significantly more Black athletes than at the D-III university. In contrast, there were more White athletes on the D-III football team than the D-I team ($\chi^2 (1) = 5.82, p = .016$).

Descriptive Data for Inventories

Participants completed the Athletic Identity Measurement Scale (AIMS), Career Decision Scale (CDS), the Satisfaction with Life Scale (SWLS) and the Profile of Mood States scale (POMS). To determine high and low scores, a median split was performed on the scores from both the AIMS and CDS. When interpreting the results for the AIMS, low athletic identity included scores between 14 and 40 while high athletic identity included scores between 41 and 49. Mean scores and standard deviations are reported in Table 4.4.

Table 4.4

Athletes' mean scores and standard deviations for inventories

Scale	NCAA D-I		NCAA D-III	
	Mean	SD	Mean	SD
AIMS	41.6	5.2	38.1	8.2
CDS	46.4	9.4	49.1	9.4
SWLS	24.1	6.5	25.3	5.5
POMS (<i>T</i> scores)				
Tension (T)*	50.1	9.1	44.8	7.0
Depression(D)*	48.1	10.5	44.3	6.7
Anger (A)	54.6	11.2	50.7	12.0
Vigor (V)	51.4	7.5	53.7	7.1
Fatigue (F)*	51.1	8.8	46.2	7.2
Confusion (C)*	47.7	10.3	43.6	9.0

Note. * $p < .05$; *** $p < .005$. Mean scores on the psychological inventories for football players at the two universities are provided. Inventories include the Athletic Identity Measurement Scale (AIMS); the Career Decision Scale (CDS); the Satisfaction with Life Scale (SWLS); and the Profile of Mood States (POMS). All scores except for the POMS are raw scores.

When interpreting the results for the CDS, low Career Maturity included scores from 30 to 47, and high Career Maturity included scores from 48 to 64. Scores on the SWLS ranged from 5 (low satisfaction) to 35 (high satisfaction). Members of the football team completed the trait version (i.e., past month) of the POMS. Results were examined in relation to Athletic Identity, Race, Year in School, and Division. Based on the *T* scores reported in Table 2, all athletes scored within the normal range of each of the subscales as reflected by *T* scores between 40 and 60 (McNair, Lorr, & Droppleman, 1992). As reflected in Table 4.4, D-I participants significantly differed on four of the six subscales.

Factors Related to Transition Out of Sport

The factors of Athletic Identity, Career Maturity, and Subjective Well-Being for football players from a D-I and D-III university were investigated. These factors were examined in relation to Division, Year in School, Race and GPA. Since this was an exploratory study, probability level of $p \leq .10$ was selected for significance.

Hypothesis 1: Athletic Identity, Division and Year in School

A 2 (Division) \times 2 (Year in School) ANOVA was used to test the hypothesis that D-I athletes and upper classmen would score higher on Athletic Identity than D-III and lower classmen athletes. There was no evidence of an interaction between Division \times Year in School, $F(1, 86) = .139$; $p \geq .71$; $\eta^2 = .002$, or a main effect for Year in School, $F(1, 86) = .053$; $p \geq .81$; $\eta^2 = .001$. However, it appeared that the main effect for Division approached significance, $F(1, 86) = 2.69$; $p = .104$; $\eta^2 = .030$. In support of the hypothesis, D-I athletes reported higher scores on Athletic Identity than D-III participants. See Figure 4.1 for D-I and D-III participants' mean scores on Athletic Identity.

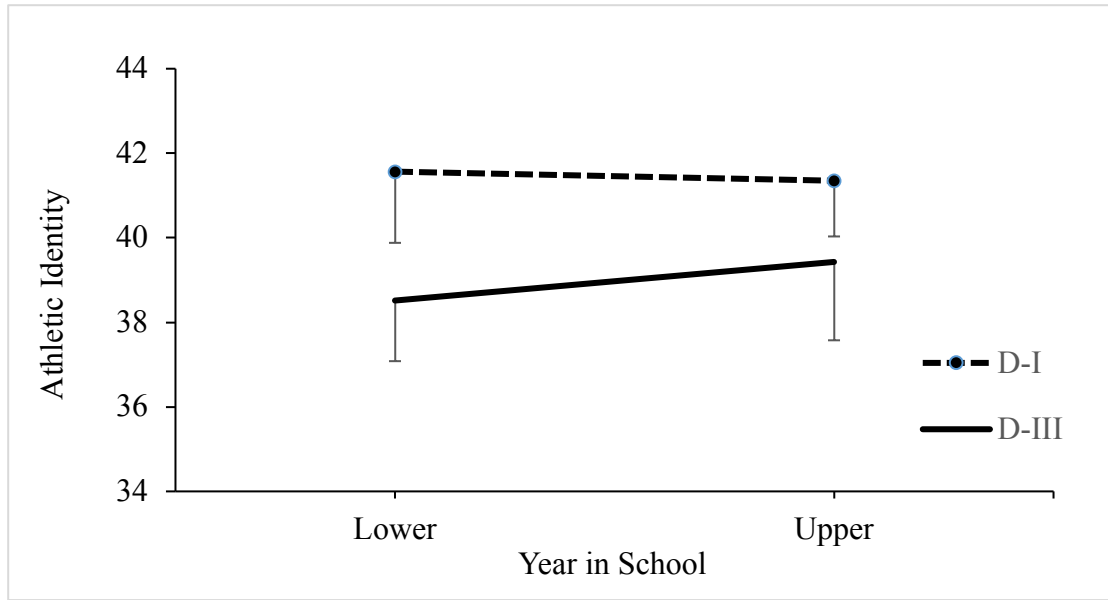


Figure 4.1. Athletic Identity and Division. Mean scores on Athletic Identity for football players at D-I and D-III universities. Standard error bars are included.

Hypothesis 2: Athletic Identity and Career Maturity

It was hypothesized that student-athletes who were low in Career Maturity would score high in Athletic Identity. To test this hypothesis, a 2 (High/ Low Career Maturity) \times 2 (Division) \times 2 (Year in School) ANOVA was employed to analyze independent variables and Athletic Identity. A median split was used to distinguish between athletes who were low (scores from 30 to 47) or high (scores from 48 to 64) in Career Maturity. As indicated in Table 4.4, athletes at the D-I university reported lower levels of Career Maturity (mean score of 46.4) while athletes at the D-III university displayed higher Career Maturity levels (mean score of 49.1).

There was no evidence of a three-way interaction, $F(1, 80) = .726$; $p \geq .39$; $\eta^2 = .009$. There also was no evidence of two-way interactions for the following: Career Maturity \times Division, $F(1, 80) = .799$; $p \geq .37$; $\eta^2 = .010$; Career Maturity \times Year in School, $F(1, 80) = .591$; $p \geq .44$; $\eta^2 = .007$; or Division \times Year in School, $F(1, 80) = .726$; $p \geq .39$; $\eta^2 = .009$.

Although the main effects for Career Maturity ($p \geq .43$) and Year in School ($p \geq .78$) did not approach significance, there was a trend for a main effect for Division ($p \geq .11$). Based on these results, it appeared that the D-I athletes scored higher than D-III athletes in Athletic Identity regardless of their Career Maturity levels. In contrast, D-III participants who were low in career maturity scored high in Athletic Identity. (See Figure 4.2.)

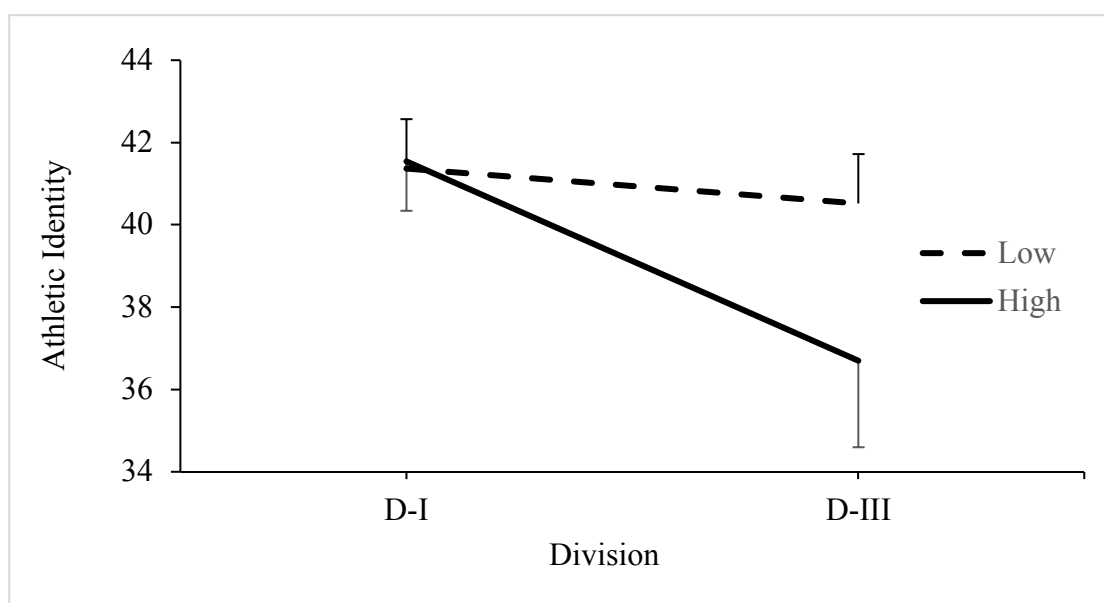


Figure 4.2. Athletic Identity and Career Maturity. Mean scores on Athletic Identity for football players at the two division in relation to Career Maturity. Low and High represents Low and High Career Maturity levels. Standard error bars are included.

Hypothesis 3: Athletic Identity and Race

Data for three categories of race were analyzed in a 3 (Race) \times 2 (Division) \times 2 (Year in School) ANOVA. Black athletes compared to those of other races were hypothesized to report higher levels of Athletic Identity. There was no evidence of a three-way interaction between Race \times Division \times Year in School, $F(1, 79) = 1.59$; $p \geq .21$; $\eta^2 = .020$ at either of the Divisions

(see Figure 4.3a). There also was no evidence of two-way interactions between Division \times Year in School, $F(1, 79) = .460$; $p \geq .50$; $\eta^2 = .006$, Race \times Division, $F(1, 79) = 1.35$; $p \geq .26$; $\eta^2 = .033$, or Race \times Year in School, $F(1, 79) = .202$; $p > .81$; $\eta^2 = .005$). See Figure 4.3b for data related to the D-I student-athletes and Figure 4.3c for data related to the D-III athletes. In addition, there was no evidence that Race, $F(2, 79) = .154$; $p > .85$; $\eta^2 = .004$, Year in School, $F(1, 79) = .140$; $p > .70$; $\eta^2 = .002$ or Division, $F(1, 79) = .974$; $p > .32$; $\eta^2 = .012$) had an effect on reported Athletic Identity (see Figure 4.3 a., b., and c.). Overall, there did not seem to be any significant differences among Athletic Identity by Race, Division, or Year in School (See figures 4.3. a., b., and c.).

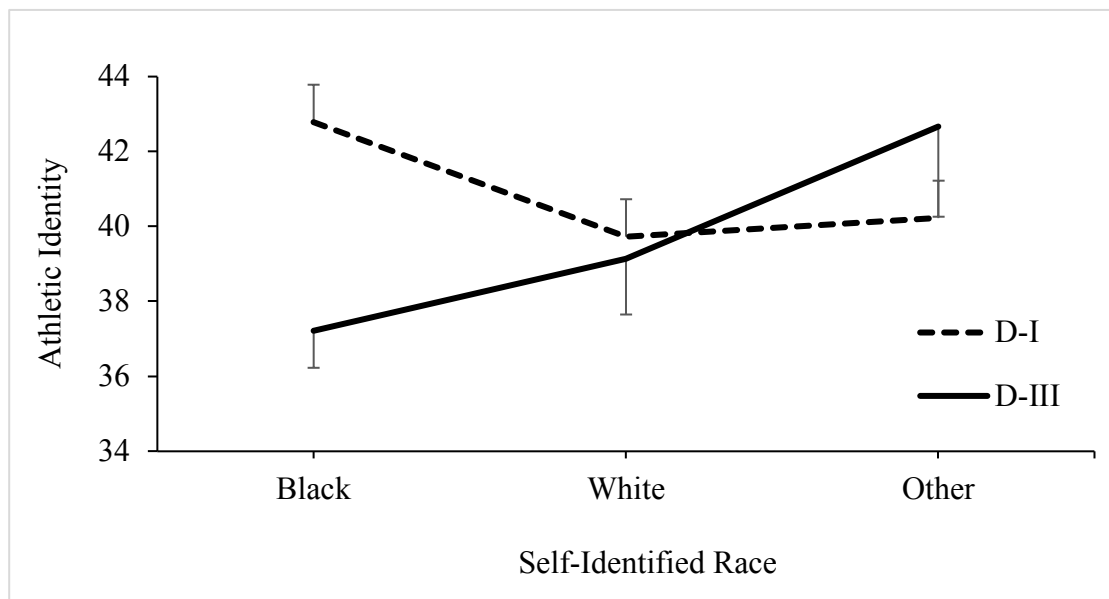


Figure 4.3a. Athletic Identity, Race, and Division. Athletic Identity in relation to Race and Year in School in the two Divisions. Standard error bars are included.

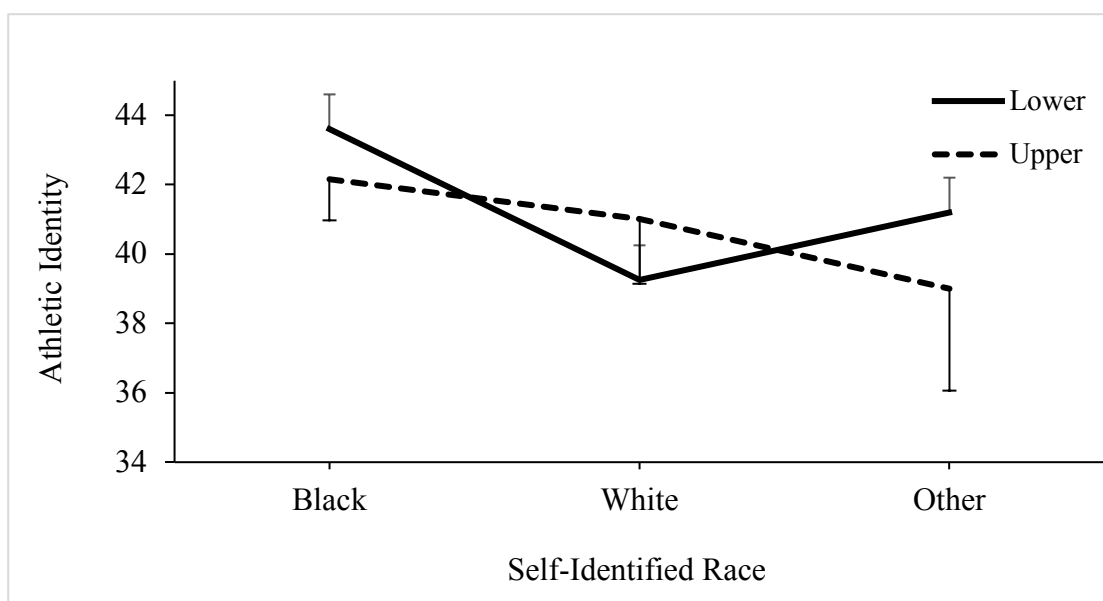


Figure 4.3b. D-I Athletes, Athletic Identity, and Race. Athletic Identity in Relation to Race and Year in School at the D-I university. Year in School is represented as lower and upper in this graph. Standard error bars are included.

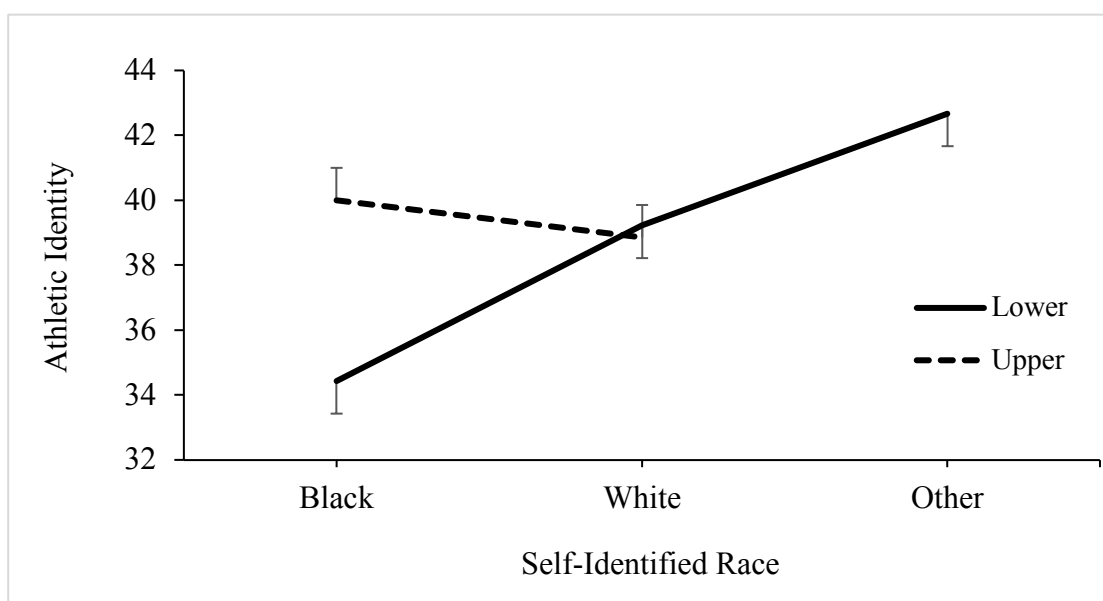


Figure 4.3c. D-III Athletes, Athletic Identity, and Race. Athletic Identity in Relation to Race and Year in School at the D-III university. Year in School is represented as lower and upper in this graph. Standard error bars are included.

Hypothesis 4: Career Maturity, Year in School, and Division

To test the hypothesis that D-III and upper classmen would have higher scores on Career Maturity than D-I and lower classmen, a 2 (Division) \times 2 (Year in School) ANOVA was used to analyze the possible differences. There was no evidence of a Division \times Year interaction, $F(1, 87) = .215$; $p \geq .64$; $\eta^2 = .002$. There also was no evidence of main effects for Year in School, $F(1, 87) = .723$; $p \geq .40$; $\eta^2 = .008$, or for Division, $F(1, 87) = 1.76$; $p \geq .18$; $\eta^2 = .020$. See Figure 4.4 for mean scores on Career Maturity for athletes D-I and D-III.

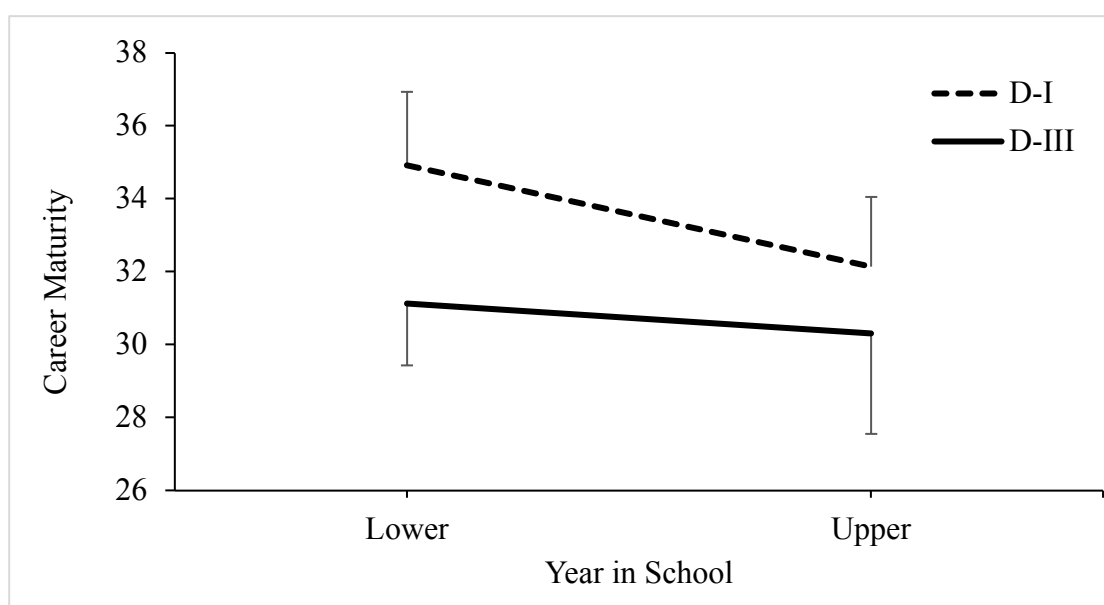


Figure 4.4. Career Maturity, Division, and Year in School. Mean Career Maturity scores in D-I and D-III lower and upper classmen athletes. Standard error bars are included.

Hypothesis 5: Athletic Identity and GPA

To test the hypothesis that D-I participants and those with high scores on Athletic Identity would have lower GPAs than D-III participants and those with low scores on Athletic Identity, a 2 (High/ Low Athletic Identity) \times 2 (Division) ANOVA was used. A median split was used to distinguish between low and high Athletic Identity groups. Scores from 14 – 40 represented Low

Athletic Identity and 42 – 49 represented High Athletic Identity. As reported in Table 4.4, the mean score at the D-III university fell within the Low Athletic Identity range (i.e., 38.1) and the mean score at the D-I university fell within the High Athletic Identity range (i.e., 41.6). There was no evidence of an interaction between Athletic Identity \times Division, $F(1, 75) = .164$; $p \geq .68$; $\eta^2 = .002$. The main effect for Athletic Identity approached significance, $F(1, 75) = 2.09$; $p > .15$; $\eta^2 = .027$. There appeared to be a trend for athletes with low Athletic Identity to have higher GPA scores than athletes who had high Athletic Identity levels. However, the main effect for Division did not appear to be significant, $F(1, 75) = 1.61$; $p \geq .20$; $\eta^2 = .021$ (see Figure 4.5).

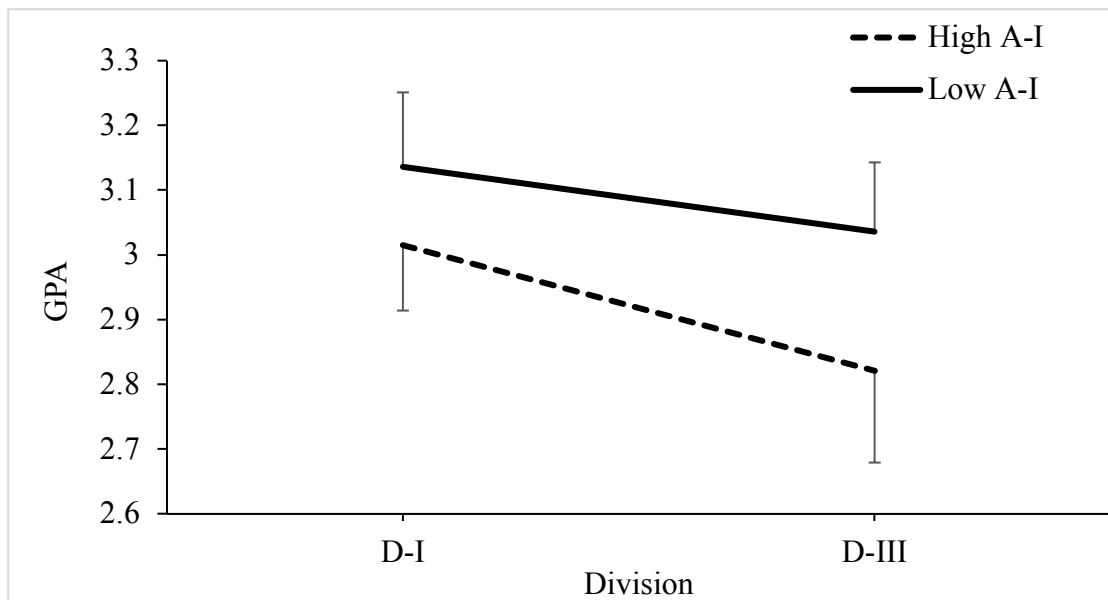


Figure 4.5. GPA, Athletic Identity, and Division. GPA scores for D-I and D-III football players who differed in Athletic Identity (A-I) and Division. Standard error bars are included.

Hypothesis 6: Satisfaction with Life and Athletic Identity

Participants from the D-III university with low Athletic Identity scores were hypothesized to report higher Satisfaction with Life (SWL) than D-I participants. To test this hypothesis, a 2 (High/ Low Athletic Identity) \times 2 (Division) ANOVA was used to analyze possible differences. There was a trend for the interaction between High and Low Athletic Identity \times Division, $F(1, 86) = 2.34$; $p \geq .12$; $\eta^2 = .027$. Thus, a simple effects analysis was performed.

Results of the simple effects indicated that Satisfaction with Life (SWL) appeared to differ between the two Divisions, $F(1, 40) = 2.73$; $p = .106$; $\eta^2 = .064$. High Athletic Identity athletes at the D-I university were less satisfied with their lives than athletes at the D-III university. It is important to note that an underlying factor such as the teams' win-loss records might explain the differences in SWL between the athletes at the two Divisions. The D-I team had a losing record for the last two years, while the D-III team had many undefeated seasons and won multiple national titles. In contrast to the high Athletic Identity athletes, results of the simple effect analysis indicated that athletes low in Athletic Identity had no apparent differences in SWL, $F(1, 46) = 1.08$; $p \geq .74$; $\eta^2 = .002$. See Figure 4.6 for SWL scores for athletes who differed in Athletic Identity at the two Divisions.

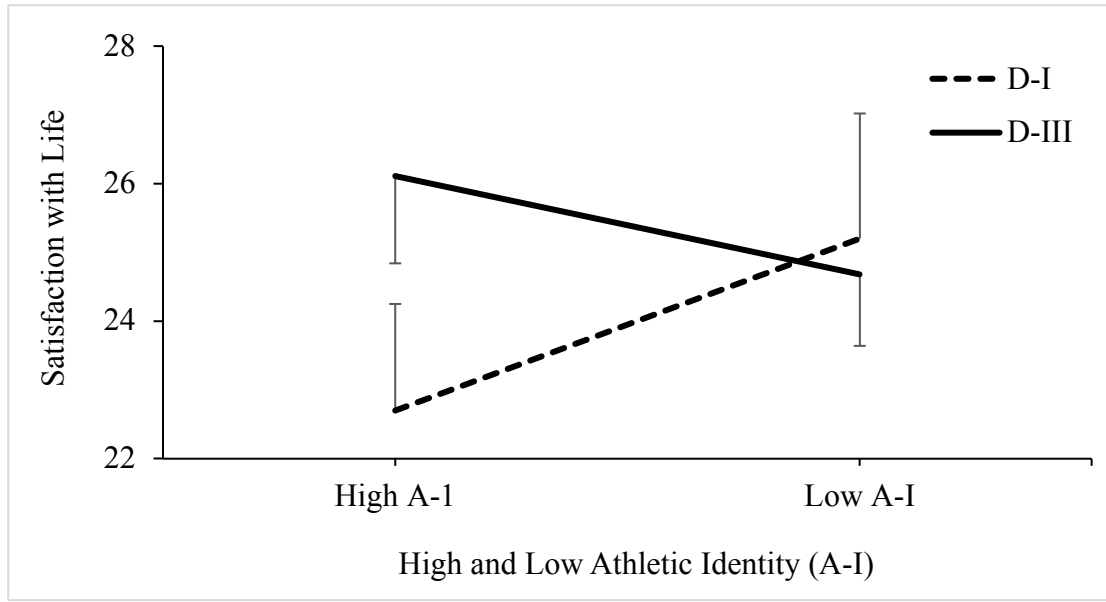


Figure 4.6. Athletic Identity, Division, and Satisfaction with Life. Athletic Identity and Division in Relation to Satisfaction with Life. Standard error bars are included.

Hypothesis 7: Mood and Athletic Identity

It was hypothesized that Mood scores would be more desirable in athletes who scored lower on Athletic Identity than those who scored higher. In addition, mood scores would be more desirable in D-III football players than D-I. To test these hypotheses, a 2 (High/Low Athletic Identity) \times 2 (Division) MANOVA was used to examine hypothesized differences in Mood on the six POMS subscales of participants within high and low Athletic Identity groups in both Divisions. No evidence of an interaction between Athletic Identity \times Division, $F(6,79) = .235$; $p \geq .96$; $\eta^2 = .018$ or for a main effect of Athletic Identity, $F(6,79) = .78$; $p \geq .58$; $\eta^2 = .056$ was revealed. However, there was a main effect for Division, $F(6,79) = 2.52$; $p \leq .02$; $\eta^2 = .161$.

Results of univariate analyses performed on each separate POMS-Trait scale indicated significant differences between D-I and D-III athletes on four of the six subscales. Athletes at the Division I school were greater than the Division III school for Tension ($p \leq .004$), Depression (p

$\leq .034$), Fatigue ($p \leq .005$), and Confusion ($p \leq .033$). See figure 4.7 for the D-I and D-III athletes' T -scores.

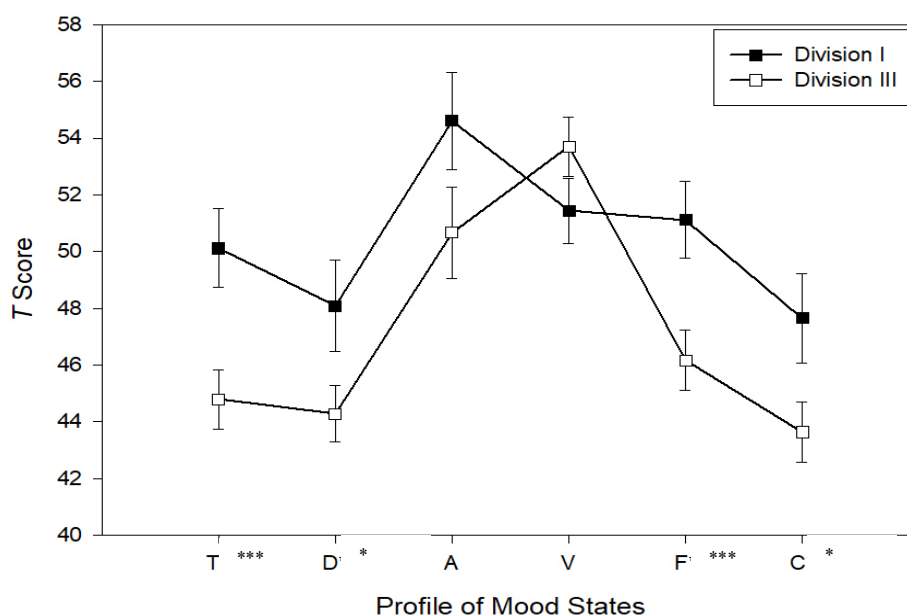


Figure 4.7. Mood and Division. * $p < .05$, *** $p < .005$. POMS-Trait subscale scores for Division I and III athletes. Results from the simple effects analyses. Standard error bars are included.

It appeared that D-I participants reported less desirable mood traits than D-III participants. This difference could reflect the D-I team's losing record, their change in coaching staff, or a multitude of factors. It is important to note that the mood scores of the D-III participants reflect an iceberg profile that is described as above the average T scores on Vigor and below average scores for Tension, Depression, Anger, Fatigue, and Confusion (e.g., Beedie, Terry, Lane, 2000; Berger, Weinberg, & Eklund, 2015; Morgan et al., 1987). An iceberg profile

is common for athletes and reflects positive mental health (Beedie et al., 2000; Berger et al., 2015; Morgan et al., 1987).

Qualitative Results: The Mathews' Questionnaire

On the Mathews' Questionnaire, participants completed nine questions pertaining to their future transition out of sport. (See Appendix G.) The first question was: *Do you plan to play football at a professional level after graduation?* Overall, 41 of the 46 D-I participants indicated *Yes*, they do think they will go on to play at the professional level while 5 indicated *No*. However, only 15 of the 47 D-III participants marked *Yes*, they think they will play at the professional level, while 32 marked *No*. The second question asked was: *Do you plan to retire from collegiate football before graduation?* At both universities, most of the participants indicated that they did not plan on retiring from sport early. Only one participant at the D-I university indicated that they planned to retire early and two reported that they planned to retire early at the D-III university.

Participants also were asked whether they believed their Student-Athlete Services as well as the faculty and staff in their majors were helpful in providing assistance with making post-college career decisions. Overall, more than half of the D-I participants indicated that they thought that Student-Athlete Services was helpful (27/45). However, the D-III participants explained that they did not have a Student-Athlete Services, and that their coaches fulfilled this role. This is not uncommon for D-III universities who tend to have smaller athletic budgets. More than half of the participants at the D-I (29/45) and D-III athletes (31/45) indicated that the faculty and staff in their majors were helpful in making post-college career decisions. In Table 4.5 data is provided for the four questions discussed that required a *Yes/No* response (i.e., questions 1, 2, 5, and 6).

Table 4.5

Mathews' Questionnaire: Yes/No responses

Question	NCAA D-I Percentages	NCAA D-III Percentages
1. Plan to play Pro-Ball	89.1%	31.9%
2. Retire Early	2.2%	4.3%
5. Help from Student-Athlete Services	60.0%	0.0%
6. Help from Faculty and Staff	64.4%	68.9%

Note. For questions 1, 2, 5, and 6, participants answered *yes* or *no*. This data represents the percent of participants who indicated *yes*. Questions 3 and 4 prompted participants to respond on a scale from 1 (not difficult) to 10 (extremely difficult) and results are reported in Table 4.6.

Table 4.6

Mathews' Questionnaire: A 10-point continuum

Question	NCAA D-I Mean SD		NCAA D-III Mean SD	
3. Perceived Transition Difficulty	6.0	3.1	6.1	2.5
4. Planning for the transition process	6.8	2.8	7.9	2.3

Note. Questions 3 and 4 prompted participants to respond on a scale from 1 (*not difficult*) to 10 (*extremely difficult*).

In Table 4.6, the data for questions three and four are provided. These two questions required responses on a 1 to 10 continuum. Question three was: *How difficult do you anticipate your transition out of sport will be?* Most participants indicated that they believed their transition out of sport would be *slightly difficult*. Participants were asked to provide an explanation for most of the questions, and many of the participants stated that they believed their transition process would be difficult because football is all they have been a part of since they were younger. For the fourth question, participants were asked: *On a scale from 1 to 10, 1 being not a lot and 10 being an extreme amount, how much planning have you put into your career after graduation from college?* Based on these results, both Divisions indicated that they put an *adequate amount* of thought towards their planning for life after graduation.

CHAPTER V. DISCUSSION

The focus of this study was to examine select factors that have been reported individually to influence a student-athlete's transition out of sport. Factors included athletic identity, career maturity, and subjective well-being. Athletic identity was examined because it has been reported to negatively influence student-athletes during their transition out of sport (e.g., Alfermann & Stambulova, 2007; Beamon, 2012; Fuller, 2014; Verkooijen et al., 2012). A strong identification with the athlete role has been reported to lead to lower levels of self-worth as well as increased levels of depression (Pearson & Petitpas, 1990; Weigand, Cohen, & Merenstein, 2013).

Athletic identity in relation to career maturity and subjective well-being were examined, because high levels of athletic identity have been related to athletes' lower levels of career maturity and subjective well-being (e.g., Fuller, 2014; Houle & Kluck, 2015; Tyrance, et al., 2013; Weigand, et al., 2013). To the researcher's knowledge, this is the first study that examines these three factors in a single investigation. In addition, this study is the first to examine these factors in relation to external factors such as GPA, NCAA Division, race and year in school. In this chapter, the results of each factor will be discussed and compared to the current sport and exercise psychology literature. Strengths and limitations of this study also are discussed, as well as future research directions.

Athletic Identity

Athletic identity was examined in relation to NCAA Division, year in school, race, career maturity, GPA, and subjective well-being. Subjective well-being included satisfaction with life and mood. Overall, it appeared that Division was the main factor related to athletic identity.

Athletic Identity and Division

As hypothesized, D-I athletes displayed higher athletic identity levels than D-III athletes. These findings are not similar to current findings (e.g., Brown & Hartley, 1998; Griffith &

Johnson, 2002; Strum et al., 2011). For example, Brown and Hartley (1998) examined athletic identity along with other factors in D-I and D-II athletes and did not report any significant differences between the two Divisions. However, Brown and Hartley (1998) may not have reported any significant differences because their comparison was between D-I and D-II athletics. As previously discussed, there are no major differences between the D-I and D-II athletics. Thus, D-I and D-III athletes were examined in the present study. The rationale being that D-I and D-III university sports differ more than D-I and D-II sports. For example, at D-III universities, athletic-based scholarships are not available for student-athletes, and athletic commitment is not as demanding (e.g., shorter practice times); academics are the primary focus for student-athletes. Thus, the researcher believed that these differences would lead to D-I student-athletes identifying more with their athlete role.

Findings in the present (i.e., D-I athletes displaying higher athletic identity levels than D-III athletes) study also contradict the results reported by Griffith and Johnson (2002), who examined athletic identity and Division in 113 D-I and D-III track and field athletes. Griffith and Johnson (2002) used the 10-item Athletic Identity Measurement Scale to evaluate athletic identity levels, rather than the 7-item scale used in the present study. They reported that “D-III athletes had significantly higher levels of athletic identity” compared to D-I athletes (p. 229). Griffith and Johnson (2002) explained that their findings were not expected, because D-I universities typically provide more opportunities for student-athletes to be immersed in athletics. Since the D-III university’s track team that was surveyed had a history of winning national titles, Griffith and Johnson (2002) suggested that consistently winning may have influenced the D-III student-athletes’ high athletic identity levels. This possible influence of win-loss season record is similar in the present study. As previously mentioned, the D-III student-athletes in the present

study have a history of winning national titles while the D-I student-athletes have not experienced a winning season since 2015. The researcher believes this could have influenced upper classmen's athletic identity levels.

In a more recent study, Strum, Feltz, and Gilson (2011) examined whether athletic identity levels were stronger at D-I than at D-III universities. They also examined both male and female sports across all years in school. There was a total of 188 student-athletes who completed questionnaires to help determine if D-I and D-III athletes differed on identity and whether differences existed between all four years in school (i.e., freshmen, sophomores, juniors and seniors). Strum and colleagues reported that only gender was a distinguishing variable in relation to identity (i.e., athletic and student identity). They reported no significant differences in athletic identity levels between D-I and D-III student-athletes or among the different years in school. One major difference between the present study and the study conducted by Strum and colleagues (2011) is the fact that they examined these differences between male and female athletes. The current study only examined differences between male participants at D-I and D-III universities. Strum and colleagues (2011) also used questionnaires to measure their variables, including athletic identity. These differences could potentially explain why significant findings were reported in the present study.

Athletic Identity and Year in School

There was no evidence of a difference reported between athletic identity and year in school. Upper classmen were expected to report high athletic identity levels because they had been participating in their sport for more years. Also, they would soon be graduating and have the strong belief that they would be competing at the professional level. However, the factors of Year in School and Athletic Identity did not appear to be related.

Few researchers have examined athletic identity and year in school, and to the current investigator's knowledge, none have reported a relationship between the two factors. The findings of this study are similar to the results of Brown and Hartley (1998) and Houle and Kluck (2015) who reported that year in school did not influence athletic identity. More researchers should study the relationship between athletic identity and year in school because if findings are reported that athletic identity increases as year in school increases, then practitioners and other professionals can use this information to assist student-athletes in successfully transitioning into life outside of competitive sport.

Athletic Identity, Year in School, and Division

Athletic identity in relation to Year in School and Division was examined, and there appeared to be a relationship among the three factors. D-III athletes who were upper classmen had higher athletic identity scores than lower classmen. In contrast, lower classmen at the D-I university had higher scores on athletic identity compared to the upper classmen. However, external factors such as the teams' win-loss record could have influenced these results.

The D-I football team's win-loss record during their 2017-2018 season was 2-10, and was 4-8 during their 2016-2017 season, as recorded on the D-I school's athletics history website. Participants from the D-I university were tested in the spring following their 2017-2018 season. Juniors and seniors during this losing streak would have been freshmen and sophomore student-athletes during their last winning season. In 2015, the team had a winning season with the win-to-loss record of 10-4. In 2015, the D-I university won the MAC Championship title and had just played in their fourth Bowl Game since 2009. They had won their first Bowl Game since 2003 the season before (i.e., their 2014-2015 season). The numerous losses during these two seasons could have resulted in decreased levels of athletic identity for all participants, and even more for

upper classmen since they would have been lower classmen during the D-I team's *winning streak* and upper classmen during their *losing streak*.

The D-III football team had a consistent 9-0 win-loss record since 1992, except for the years of 2016, 2005, and 1994 when they had an 8-1 win-loss record, as cited on the D-III university's athletics webpage. Their win-loss record was 9-0 during their 2017-2018 season when they were tested. Between 2015 to 1992, the D-III university won their conference title 24 consecutive times. They also won thirteen national titles from 1993 to 2017, which included the year they were tested. The researcher in the present study speculates that the D-III winning record could partially explain why the D-III upper classmen reported higher athletic identity levels than the upper classmen at the D-I university. Researchers should take the win-loss record into account when examining potential differences in a variety of areas among the three NCAA Divisions.

Athletic Identity and Race

In the present study, there was no evidence that Athletic Identity differed across Race. There have only been a few researchers who have examined this relationship, and current findings do not agree with what has been reported (e.g., Beamon, 2012; Harrison et al., 2011). Previous researchers have concluded that Black athletes display higher Athletic Identity levels compared to other races (e.g., Harrison et al., 2011). Furthermore, Black football and basketball players have been reported to identify more with their athlete roles than members of other races (Beamon, 2012; Harrison et al., 2011).

Beamon (2012) examined the relationship between race and athletic identity and reported that Black athletes strongly identify with their athletic roles. However, Beamon (2012) interviewed 20 Black athletes who previously participated in football or basketball at D-I universities. Athletes in the present study self-identified as Black, White, and *Other* and were

currently participating at two different NCAA Divisions. In addition, athletic identity was measured in the present study with the Athletic Identity Measurement Scale (Brewer et al., 1993), where Beamon (2012) used an ethnographic interview process to qualitatively examine athletic identity levels. These differences may explain why similar findings were not reported.

Harrison and colleagues (2011) reported significant differences between race and athletic identity. Similar to the present study, Harrison and colleagues (2011) utilized the Athletic Identity Measurement Scale (Brewer et al., 1993) to measure athletic identity levels. They examined Black and White football players and reported that Black athletes had stronger athletic identity levels than their White teammates. Harrison and colleagues also explained that Black athletes indicated that they “were more internally focused on their sport, felt that others perceive them only as athletes, and see sport as the focal point in their lives” (p. 12). These findings support what Beamon (2012) explained, that Black athletes have been “socialized intensely into sports by family, peers, media, and community” (p. 196). In my opinion, more research is needed on the relationship between athletic identity and race before generalizations about the effects of race on athletic identity can be made.

Athletic Identity and GPA

There was no evidence that D-I participants had lower GPAs in relation to athletic identity. However, athletes with low athletic identity scores at both universities had higher GPAs. Furthermore, D-I participants reported higher GPAs than D-III participants. These results are surprising because D-III athletics emphasize the student role more than the athlete role. However, many factors could have influenced these results. For example, the type of academic majors that were selected by each athlete (e.g., premed vs. general studies). This data was collected but was not further examined in the present investigation. Also, GPAs were self-

reported. Participants could have reported any GPA they wanted. Thus, the researcher is left having to trust that what was reported was accurate. Another factor that may have influenced the present results is that the D-III participants indicated that they do not have a Student-Athlete Services (SAS). At the D-I university, SAS assists student-athletes with their overall enhancement, but focus a lot of their efforts on academic support. Advisors that work in this office are assigned to different sports and ensure that student-athletes maintain sufficient GPA scores, their homework is being completed, and that student-athletes are attending their classes. Also, the football team has recently hired a new academic advisor who has been credited with increasing the football players' GPAs. The D-III participants specifically stated that they did not have a Student-Athlete Services, and many of their coaches fulfilled this role. This extra academic support could also help explain why D-I athletes reported higher GPA scores than the D-III athletes. However, further research on the relationship between GPAs and Division is needed before making conclusions about these results.

Career Maturity

It was reported that athletes who were low in career maturity scored high in athletic identity. However, this relationship was only observed in D-III participants. For the D-I participants, career maturity did not seem to be related to athletic identity. Regardless of their career maturity scores, D-I participants scored higher than D-III participants on athletic identity. Researchers examining the relationship between career maturity and athletic identity have concluded that participants with high athletic identity levels tend to have low career maturity levels (e.g., Houle & Kluck, 2015; Murphy, Petitpas, & Brewer, 1996; Lally and Kerr, 2005; and Tyrance, Harris, & Post, 2013). However, this study differs from previous studies because career maturity, Division, and year in school were examined together.

It was hypothesized that career maturity would be higher for D-III participants and upper classmen football players than D-I and lower classmen players. This was hypothesized because if D-III participants were to have lower athletic identity scores, as hypothesized, then their career maturity scores would be higher. Furthermore, because most upper classmen *should* be preparing for graduation, the rationale was that their career maturity levels would be higher than lower classmen who recently entered college. However, this was not the case. These results were interesting because current literature supports the claim that high athletic identity leads to low career maturity (e.g., Houle & Kluck, 2015; Murphy, Petitpas, & Brewer, 1996; Tyrance, Harris, & Post, 2013). However, D-I participants in the current study displayed high athletic identity levels regardless of their career maturity scores.

Subjective Well-Being

Subjective well-being (SWB) was examined in relation to athletic identity as well as NCAA Division. To the researcher's knowledge, there are no studies that have examined SWB in relation to athletic identity and NCAA Division. Previous researchers have only examined SWB and athletic identity and reported that high levels of athletic identity have resulted in lower levels of SWB (e.g., Grove et al., 1997; Martin, et al., 2014; Verkooijen et al., 2012; Weigand et al., 2013). However, the participants tested, and the methods used to examine SWB were not similar to the present study. Furthermore, SWB in the present study was determined by participants' satisfaction with life and mood traits. This study was designed to produce needed information using standardized measures of athletic identity and satisfaction with life.

Satisfaction with Life

D-I athletes who were high in athletic identity had lower SWL than D-III athletes who were high in athletic identity. There are many possible underlying reasons for these results such

as win-loss record, exercise intensity and duration of practices, coach-player relationships, or even the emphasis on sport in the university culture.

In the current sample of D-I and D-III athletes, there is a possibility that the D-III participants could have reported higher levels of SWL than the D-I participants could be due to the D-III team's successful winning seasons. Relatively few researchers have examined the relationship between mood and athletic performance. However, the ones that have examined this relationship have reported that high athletic performance/ability could lead to more desirable mood states (e.g., Beedie, Terry, & Lane, 2000; Brandt, da Silveira Viana, Crocetta, & Andrade, 2016). In addition, no researchers have examined the relationship between athletic identity and satisfaction with life in regards to NCAA Division level. The few researchers who have examined satisfaction with life in relation to athletes transition out of sport, have examined elite-level athletes who had recently retired from sport (e.g., Lavalley, et al., 1997; Sinclair & Orlick, 1993; Werthner & Orlick, 1986). These researchers have reported on athletes' satisfaction with life post- retirement from sports unlike in the present study, where participants were tested prior to retirement from sport and were collegiate-level athletes.

In a more recent study, Martin and colleagues (2014) examined the relationship between satisfaction with life and athletic identity. They examined Australian collegiate-level athletes over a five-year period and whether these participants planned to retire during this time. Martin and colleagues (2014) examined whether voluntary retirement influenced athletic identity levels and satisfaction with life. Martin and colleagues (2014) reported that satisfaction with life was negatively related to athletic identity if retirement was not voluntary. Their study is not the same as the present study; however, more similar than the previous studies mentioned.

Mood

There was no evidence that Mood was related to athletic identity. However, mood was related to Division. D-III athletes reported more desirable mood scores than D-I athletes on the subscales of Tension, Depression, Fatigue, and Confusion. This difference between Divisions could reflect a multitude of factors, such as the D-I team's losing record, their changes in coaches/staff, longer hours of practice as well as more games throughout the season compared to D-III football programs, or a multitude of other factors.

Researchers have reported that athletes who strongly identify with their athletic roles may be more prone to experiencing decreased mood levels (Giannone et al., 2017; Grove et al., 1997; Weigand et al., 2013). However, current findings on mood and athletic identity do not agree with what has been reported in the literature. Current findings may not match previous results for a variety of reasons. One reason may be because the POMS was used in the present study to measure mood traits. Previous researchers examining mood have used inventories such as the State-Trait Anxiety Inventory (Giannone et al., 2017), the COPE Inventory (Grove et al., 1997), and the Wakefield Depression Scale (Weigand et al., 2013). The use of the POMS to measure mood traits may explain the differences in results. Further research is needed on the relationship between mood and athletic identity, as well as information on which inventories are valid to use when measuring mood traits.

It was reported that Division did influence Mood. However, it is still not clear whether the differences in mood and Division level were due the teams' win-loss records or many other variables that were beyond the scope of this study. In a recent study, Brandt and colleagues (2016) examined mood states and athletic performance in elite sailors. They reported that athletes who took first-place reported better mood states than the athletes who did not place first. They explained that first place participants reported higher Vigor, and lower Depression and

Fatigue compared to participants who took other places. Brandt and colleagues (2016) utilized the Brunel Mood Scale to measure mood states in elite sailors, which is similar to the POMS. Their findings supported the claim that a winning or losing season can influence mood. Similar to what Brandt and colleagues (2016) reported in their study, D-III participants in the present study reported higher Vigor, and lower Depression and Fatigue compared to the D-I participants. The D-III participants are also used to consistent winning seasons. Overall, further research is needed on these variables in football players. It would be interesting to examine Mood, Division, Win-Loss record and Athletic Identity in a group of athletes.

The Mathews' Questionnaire

Past researchers examining the transition process out of sport have encouraged the use of qualitative methods to examine the athletic retirement process (e.g., Grove et al., 1997; Kerr & Dacyshyn, 2000). In an attempt to support these claims, the Mathews' Questionnaire was developed and administered to the D-I and D-III participants. Participants were first asked to indicate whether they planned to play at the professional level after graduation, or if they planned to retire from sport. Close to 90% of the D-I participants and 30% of the D-III athletes indicated that they planned to play at the professional level. This raised some concern because college football players have a 1.8% chance of being drafted by an NFL team (NCAA, 2015). In addition, the D-I participants reported high athletic identity levels. It has been reported that for many student-athletes, their strong identification with their athlete role overshadows their beliefs that they need to explore new identities and career options (Brown, Glastetter-Fender, & Shelton, 2000). Thus, it appears that the D-I athletes in the present study should be encouraged to plan for careers outside of the NFL since a large majority of the athletes indicated that they plan to play at the professional level and reported high levels of athletic identity. Participants also were asked to

indicate how difficult they perceived their transition out of sport would be and were asked to indicate how much thought and planning they had put into life after graduation (see Table 4.5).

Another prompt on the Mathews' Questionnaire was related to the student-athletes and if they believed Student-Athlete Services (SAS) helped them to make post-college career decisions. More than half of the D-I participants indicated that SAS was helpful in making these decisions. However, the D-III participants indicated that they do not have a SAS, and that their coaches fulfil this role. A similar prompt on the questionnaire was related to the student-athletes and if they believed the faculty and staff in their majors helped them to make post-college career decisions. Participants thought that faculty and staff in their majors were helpful in making post-college decisions. With that being said, there were still 30-40% of the participants who did not think that they were helpful in making these decisions. However, a variety of factors could have influenced these results, similar to the results regarding SAS. The phrase *post-college career decisions* is not only vague, but is also subjective. For example, the D-I participants indicated that they plan to play at the professional level after college. If SAS and their university are not helping them to reach this goal, then to some D-I participants, they are not receiving the help they need.

Strengths and Limitations

A major strength of this study is its unique contribution to the sport retirement literature. Few studies have examined athletic identity, career maturity, and subjective well-being together. Furthermore, few studies have examined these factors by NCAA Division level, year in school, race, and GPA. Thus, this is new information on AI, Career Maturity and subjective well-being with regard to these four factors. Another strength of this study is factors that have been reported to influence the athlete's transition out of sport were investigated. Transition literature has

become a hot topic over the past few years, as athletes and practitioners realize that athletes experience difficulties as their athletic careers conclude with college graduation, and the importance of helping athletes with this transition process has been identified.

In addition to the strengths of this study, there are a few limitations that should be considered when interpreting the results. One limitation of this study was the limited variation for the sample size among race and years in school. There were no Asian participants and few participants self-identified as *Other*. Also, there were far more lower classmen at both universities compared to upper classmen participants. This could be due how the participants were recruited and when they were tested. Recruiting participants at the end of the school year was not effective for obtaining participants from all years in school. Which is another limitation of the current study. Most of the seniors were not required to lift with their teammates because their college eligibility had expired. Future researchers should find a way to recruit participants to ensure all grade levels are evenly represented.

Future Directions

Researchers should consider collecting data at the beginning and end of the seasons to determine the effects of time on the variables. This would allow researchers to observe changes in athletic identity, career maturity, and subjective well-being (SWB) over a season. It is hypothesized that these factors would change over the season, especially athletic identity levels and SWB. Participants in the current study were tested towards the end of the spring semester. Researchers should consider testing players at the beginning of their season around August/September and at the end of their season around November/December. However, researchers should be mindful that external factors, such as a teams' win-loss record could influence changes over time with these factors. Researchers should find a way to measure this or test teams that are comparable in win-lose records.

Researchers also should focus on the relationship between GPA and major in relation to career maturity. This data was collected in the current study. Thus, the current researcher could utilize this data for future studies. It would be interesting to examine the relationships among GPA, major, and career maturity. Researchers should also focus on designing new measures that assess career maturity and athletic identity. While the current measures (i.e., Brewer & Cornelius, 2001; Osipow, Carney, Winer, Yanico, & Koschier, 1976) are valid and widely used, these measures date back to the 1970's and 80's. Recent measures should be developed to better assess these variables. Additionally, future investigations of athletic identity and career maturity should consider measuring athletic identity and career maturity using qualitative methods.

Summary

The current study has provided evidence that NCAA Division can influence Athletic Identity. D-I participants reported higher Athletic Identity levels than D-III athletes, which contradicts previous findings (e.g., Brown & Hartley, 1998; Griffith & Johnson, 2002, & Strum et al., 2011). Further research is needed to examine the differences between Athletic Identity and NCAA Division. However, researchers should be mindful of the congruency among the teams they select.

Evidence also was provided to support the claim that Athletic Identity and Division could influence Subjective Well-being (i.e., satisfaction with life and mood). D-I athletes who reported high Athletic Identity levels tended to have lower levels of Satisfaction with Life compared to D-III athletes who reported high Athletic Identity levels. It also was reported that Division impacted Mood. D-I athletes reported less desirable moods traits on four of the six POMS subscales, which included: Tension, Depression, Fatigue, and Confusion. In conclusion, D-I athletes tended to have higher AI, lower SWL scores, and less desirable moods. These results may reflect Division level, or season outcomes. The D-I team had losing seasons during the last

few years, while the D-III team had a strong history of winning seasons. Thus, further studies are needed to examine the SWB in athletes from different NCAA Divisions who are comparable in their winning-losing seasons to better assist them in maintaining high levels of SWB as they encounter the challenge of transitioning out of sport.

While no significant differences were reported between Athletic Identity and Career maturity, it is still important to examine in collegiate-level student-athletes because only a small percentage of NCAA student-athletes transition to the professional level (NCAA, 2015). Student-athletes have reported that they either lack the time or interest to do career planning and/or view it as a threat to their athletic identity as well as their aspirations of playing at a professional level (Fuller, 2014; Tyrance, et al., 2013). It has been reported that individuals with a strong and exclusive commitment to the athlete role are less prepared for post sport careers than individuals less invested in the athlete role (Baillie & Danish. 1992; Pearson & Petitpas, 1990). Although some of these studies are dated, these inconsistent findings indicate a need for further research to clarify the relationship between athletic identity and career maturity.

REFERENCES

- Adler, M.G., & Fagley, N.S. (2005). Appreciation: Individual differences in finding value and meaning as a unique predictor of subjective well-being. *Journal of Personality*, 73, 79–114.
- Alfermann, D. (2000). *Causes and consequences of sport career termination*. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 45-58). Morgantown, WV: Fitness Information Technology.
- Alfermann, D., & Stambulova, N. (2007). Career Transitions and Career Termination In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 712 - 733). Hoboken, N.J: John Wiley & Sons
- Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination: A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of Sport and Exercise*, 5, 61-75.
- Baillie, P. H., & Danish, S. J. (1992). Understanding the career transition of athletes. *The Sport Psychologist*, 6, 77-98.
- Brandt, R., da Silveira Viana, M., Crocetta, T. B., & Andrade, A. (2016). Association between mood states and performance of Brazilian elite sailors: Winners vs. non-winners. *Cultura, Ciencia y Deporte*, 11, 119-125.
- Beamon, K. (2008). Used goods: African-American student-athletes' perception of exploitation by Division I universities. *The Journal of Negro Education*, 77, 352–364.
- Beamon, K. (2012). “I’m a baller”: Athletic identity foreclosure among African-American former student-athletes. *Journal of African American Studies*, 16, 195-208.

- Beamon, K., & Bell, P. (2006). Academics versus athletics: An examination of the effects of background and socialization on African-American male student-athletes. *The Social Science Journal*, 43, 393–403.
- Beedie, C. J., Terry, P. C., & Lane, A. M. (2000). The profile of mood states and athletic performance: Two meta-analyses. *Journal of Applied Sport Psychology*, 12, 49-68.
- Berger, B. G., Weinberg, R. S., & Eklund, R. C. (2015). *Foundations of exercise psychology* (3rd ed.). Morgantown, WV: FiT Publishing.
- Berkman, J. (2015) What are NCAA divisions? Division 1 vs 2 vs 3. *PopScholar*. Retrieved from <https://blog.prepscholar.com/what-are-ncaa-divisions-1-vs-2-vs-3>
- Bernes, K. B., McKnight, K. M., Gunn, T., Chorney, D., Orr, D. T., & Bardick, A. D. (2009). Life after sport: Athletic career transition and transferable skills. *Journal of Excellence*, 13, 63-77.
- Bjornsen, A. L., & Dinkel, D. M. (2017). Transition experiences of division-1 college student-athletes: Coach perspectives. *Journal of Sport Behavior*, 40, 245-268.
- Bourgeois, A., LeUnes, A., & Meyers, M. (2010). Full-scale and short-form of the Profile of Mood States: A factor analytic comparison. *Journal of Sport Behavior*, 33, 355-376.
- Bowling Green State Falcons School History. (2018). Retrieved February, 2019, from <https://www.sports-reference.com/cfb/schools/bowling-green-state/index.html>
- Brewer, B.W., & Cornelius, A.E. (2001). Norms and factorial invariance of the Athletic Identity Measurement Scale. *Academic Athletic Journal*, 15, 103–113.
- Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology*, 24, 237-254.

- Brewer, B. W., Van Raalte, J. L. & Petitpas, A. J. (2000) Self-identity issues in sport career transitions. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 29-43). Morgantown, WV: Fitness Information Technology.
- Brown, C., Glastetter-Fender, C., & Shelton, M. (2000). Psychosocial identity and career control in college student-athletes. *Journal of Vocational Behavior*, 56, 53-62.
- Brown, C., & Hartley, D. (1998). Athletic identity and career maturity of male college student-athletes. *International Journal of Sport Psychology*, 29, 17-26.
- Brownrigg, A., Burr, V., Locke, A., & Bridger, A. J. (2012). You don't know what's around the corner: A qualitative study of professional footballers in England facing career-transition. *Qualitative Methods in Psychology Bulletin*, 1-25.
- Cecić Erpič, S. C., Wylleman, P., & Zupančič, M. (2004). The effect of athletic and non-athletic factors on the sports career termination process. *Psychology of sport and exercise*, 5, 45-59.
- Cummins, P., & O'Boyle, I. (2014). Psychosocial factors involved in transitions from college to postcollege careers for Male NCAA Division-1 Basketball Players. *Journal of Career Development*, 42, 33-47.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-75.
- Diener, E., Martin, E. P., Seligman, M. E., Choi, H., & Oishi, S. (2018). Happiest people revisited. *Perspectives on Psychological Science*, 13, 176-184.
- Diener, E. D., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, 54, 403-425.
- Diener, E., & Seligman, M. E. (2002). Very happy people. *Psychological Science*, 13, 81-84.

- Fernandez, A., Stephan, Y., & Fouquereau, E. (2005). Assessing reasons for sports career termination: Development of the athletes' retirement decision inventory (ARDI). *Psychology of Sport and Exercise*, 7, 407-421.
- Fryklund, S. (2012). Swedish student-athletes' within-career transitions. *Department of Sports Science*, pp.1-87.
- Fuller, R. D. (2014). Transition experiences out of intercollegiate athletics: A meta-synthesis. *The Qualitative Report*, 19, 1-15.
- Giannone, Z. A., Haney, C. J., Kealy, D., & Ogrodniczuk, J. S. (2017). Athletic identity and psychiatric symptoms following retirement from varsity sports. *International Journal of Social Psychiatry*, 63, 598-601.
- Goodman, J., Schlossberg, N. K., & Anderson, M. L. (2006). *Counseling adults in transition: Linking practice with theory*. Springer Publishing Co.
- Griffith, K. A., & Johnson, K. A. (2002). Athletic identity and life roles of division I and division III collegiate athletes. *Journal of Undergraduate Research*, 5, 225-231.
- Grove, J. R., Lavallee, D., & Gordon, S. (1997). Coping with retirement from sport: The influence of athletic identity. *Journal of Applied Sport Psychology*, 9, 220-231.
- Harrison, L., Sailes, G., Rotich, W. K., & Bimper, A. (2011). Living the dream or awakening from the nightmare: race and athletic identity. *Race, Ethnicity, & Education*, 14, 91-103.
- Heird, E. B., & Steinfeldt, J. A. (2013). An interpersonal psychotherapy approach to counseling student athletes: Clinical implications of athletic identity. *Journal of College Counseling*, 16, 143-157.
- Houle, J. L., & Kluck, A. S. (2015). An examination of the relationship between athletic identity and career maturity in student-athletes. *Journal of Clinical Sport Psychology*, 9, 24-40.

- Jacobs, P. (2015). Here's the insane amount of time student-athletes spend on practice. *Business Insider*. Retrieved from <http://www.businessinsider.com/college-student-athletes-spend-40-hours-a-week-practicing-2015-1>.
- Johns, D. P., Lindner, K. J., & Wolko, K. (1990). Understanding attrition in female competitive gymnastics: Applying social exchange theory. *Sociology of Sport Journal*, 7, 154-171.
- Kerr, G., & Dacyshyn, A. (2000). The retirement experiences of elite, female gymnasts. *Journal of Applied Sport Psychology*, 12, 115-133.
- Lally, P. S. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport and Exercise*, 8, 85-99.
- Lally, P. S., & Kerr, G. A. (2005). The career planning, athletic identity, and student role identity of intercollegiate student athletes. *Research Quarterly for Exercise and Sport*, 76(3), 275-285.
- LaRowe, S. D., Kline, J. P. & Patrick, C. J. (2004). Defensiveness is related to increased startle magnitude. *Personality and Individual Differences*, 37, 1441-1451.
- Lavallee, D. (2000). Theoretical perspectives on career transitions in sport. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 127). Morgantown, WV: Fitness Information Technology.
- Lavallee, D., Grove, J. R., & Gordon, S. (1997). The causes of career termination from sport and their relationship to postretirement adjustment among elite-amateur athletes in Australia. *Australian Psychologist*, 32, 131-135.
- Lavallee, D., & Robinson, H. K. (2007). In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics. *Psychology of sport and exercise*, 8, 119-141.

- Lavallee, D., Sunghee, P., & Taylor, J. (2015). Career transition among Athletes: Is there life after sport? In J. Williams & V. Krane. (7th Ed.), *Applied sport psychology: Personal growth to peak performance* (490 - 509). New York, NY: McGraw-Hill Education.
- Levinson, E. M., Ohler, D. L., Caswell, S., & Kiewra, K. (1998). Six approaches to the assessment of career maturity. *Journal of Counseling and Development*, 76, 475.
- Lubker, J. R., & Etzel, E. F. (2007). College adjustment experiences of first-year students: Disengaged athletes, nonathletes, and current varsity athletes. *NASPA Journal*, 44, 457-480.
- Martin, L. A., Fogarty, G. J., & Albion, M. J. (2014). Changes in athletic identity and life satisfaction of elite athletes as a function of retirement status. *Journal of Applied Sport Psychology*, 26, 96-110.
- McNair, D. M, Lorr, M., & Droppleman, L. F. (1992). The POMS Manual: Profile of Mood States. Educational and Industrial Testing Services. San Diego, CA.
- Morgan, W. P., Brown, D. R., Raglin, J. S., O'Connor, P. J., & Elickson, K. A. (1987). Psychological monitoring of overtraining and staleness. *British Journal of Medicine*, 21, 107-114.
- Morris, R. (2013). *Investigating the youth to senior transition in sport: from theory to practice* (Doctoral dissertation, Aberystwyth University). 1 - 312
- Murphy, G. M., Petitpas, A. J., & Brewer, B. W. (1996). Identity foreclosure, athletic identity, and career maturity in intercollegiate athletes. *The Sport Psychologist*, 10, 239-246.
- NCAA (2015). Estimated probability of competing in professional athletics. Retrieved from <http://www.ncaa.org/about/resources/research/estimated-probability-competing-professional-athletics>

- NCAA (2017). Divisional differences and the history of multidivision classification. Retrieved from <http://www.ncaa.org/about/who-we-are/membership/divisional-differences-and-history-multidivision-classification>
- Osipow, S. H., Carney, C. G., Winer, J. L., Yanico, B., & Koschier, M. (1976). The Career Decision Scale (3rd revision). Columbus, OH: Marathon Consulting and Press. (<https://www.parinc.com/Products/Pkey/53>).
- Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic review. *International Review of Sport and Exercise Psychology*, 6, 22-53.
- Park, S., Tod, D., & Lavallee, D. (2012). Exploring the retirement from sport decision-making process based on the transtheoretical model. *Psychology of Sport and Exercise*, 13, 444-453.
- Pavot, W., Diener, E. D., Colvin, C. R., & Sandvik, E. (1991). Further validation of the satisfaction with life scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment*, 57, 149-161.
- Pearson, R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventive perspectives. *Journal of Counseling and Development*, 69, 7-10.
- Petitpas, A., Champagne, D., Chartrand, J., Danish, S., & Murphy, S. (1997). *Athlete's guide to career planning*. Champaign, IL: Human Kinetics
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the MCSDS. *Journal of Clinical Psychology*, 38, 119-125.
- Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist*, 9, 2-18.

- Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5, 475–492.
- Sinclair, D. A., & Orlick, T. (1993). Positive transitions from high-performance sport. *The sport psychologist*, 7, 138-150.
- Stambulova, N. (1994). Developmental sports career investigations in Russia: A post-perestroika analysis. *The Sport Psychologist*, 8, 221-237.
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). ISSP position stand: Career development and transitions of athletes. *International Journal of Sport and Exercise Psychology*, 7, 395-412.
- Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise*, 8, 101-118.
- Steger, M.F., Frazier, P., Oishi, S., & Kaler, M. (2006). The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53, 80–93.
- Sturm, J. E., Feltz, D. L., & Gilson, T. A. (2011). A comparison of athlete and student identity for Division I and Division III athletes. *Journal of Sport Behavior*, 34, 295.
- Taylor, J., & Ogilvie, B. C. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology*, 6, 1-20.
- Taylor, J., & Ogilvie, B. C. (2001). Career termination among athletes. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (pp. 672-691). Hoboken, N.J: John Wiley & Sons.
- Terry, P. C., & Lane, A. M. (2000). Normative values for the Profile of Mood States for use with athletic samples. *Journal of Applied Sport Psychology*. 12, 93-109.

- Tyrance, S. C., Harris, H. L., & Post, P. (2013). Predicting positive career planning attitudes among NCAA Division I college student-athletes. *Journal of Clinical Sport Psychology, 7*, 22-40.
- University of Mount Union Athletics. (2018). Retrieved February, 2019, from <http://athletics.mountunion.edu/sports/fball/records/year-by-year-records>
- Verkooijen, K. T., Van Hove, P., & Dik, G. (2012). Athletic identity and well-being among young talented athletes who live at a Dutch elite sport center. *Journal of Applied Sport Psychology, 24*, 106-113.
- Weigand, S., Cohen, J., & Merenstein, D. (2013). Susceptibility for depression in current and retired student athletes. *Sports Health: A Multidisciplinary Approach, 5*, 263-266.
- Werthner, P., & Orlick, T. (1986). Retirement experiences of successful Olympic athletes. *International Journal of Sport Psychology, 17*, 337-363.
- Wylleman, P., Alfermann, D., & Lavalley, D. (2004). Career transitions in sport: European perspectives. *Psychology of Sport and Exercise, 5*, 7-20.
- Yang, J., Peek-Asa, C., Corlette, J. D., Cheng, G., Foster, D. T., & Albright, J. (2007). Prevalence of and risk factors associated with symptoms of depression in competitive collegiate student athletes. *Clinical Journal of Sport Medicine, 17*, 481-487.

APPENDIX A. DEMOGRAPHICS INVENTORY

Directions: Please fill in the following questions as accurately as possible.

1. ID: _____

(last 4 digits of cellphone number)
(last 4 digits of BGSU ID)

2. Birthdate: _____ / _____ / _____ MO/DY/YY

3. Race/ethnicity: Mark the response that best applies to you.

_____ (1) Black
 _____ (2) White
 _____ (3) Asian
 _____ (4) Other: _____

4. Height _____ (feet) _____ (inches)

5. Weight _____ (lbs.)

6. Major at university: _____

7. Estimated Current GPA: _____ (if unsure write unknown)

8. What academic year (based on credits) in college are you? Mark the response that best applies to you.

_____ (1) Freshmen – less than 30 credit hours completed
 _____ (2) Sophomore – between 30 – 60 credit hours completed
 _____ (3) Junior – between 60 – 90 credit hours completed
 _____ (4) Senior – between 90 – 120 credit hours completed
 _____ (5) 5th year Senior – more than 120 credit hours completed

9. Highest level of education completed by your father

- _____ (1) Middle School Graduate
- _____ (2) High School Graduate
- _____ (3) Some College
- _____ (4) Four year College Graduate
- _____ (5) Professional degree (Masters' or Doctoral Degree)

10. Highest level of education completed by your mother

- _____ (1) Middle School Graduate
- _____ (2) High School Graduate
- _____ (3) Some College
- _____ (4) Four year College Graduate
- _____ (5) Professional degree (Masters' or Doctoral Degree)

11. How many years have you played football at each of these levels?

- _____ (1) College
- _____ (2) High School
- _____ (3) Middle School
- _____ (4) Youth (e.g., Pop Warner)

12. Are you/have you ever been on an athletic scholarship during your time on the football team?

Yes No

- _____ _____ Freshmen
- _____ _____ Sophomore
- _____ _____ Junior
- _____ _____ Senior

_____ Other (describe)

13. List other sport and exercise activities you participate in at the present time (outside of football)

1. _____

2. _____

3. _____

14. List and describe any clubs/interest you pursue outside of football (ex. Sports Management Alliance, We Are One Team, Student-Athlete Advisory Committee, etc.)

1. _____

2. _____

3. _____

APPENDIX B. PROFILE OF MOOD STATES SCALE
(Copies purchased from Multi-Health Systems Inc., North Towanda, NY)

This is a protected and copyrighted questionnaire. Please see the POMS Manual: Profile of Mood States (McNair, Lorr, & Droppleman, 1992).

APPENDIX C. SATISFACTION WITH LIFE SCALE

Directions: Below are five statements with which you may agree or disagree. Using the 1 -7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding. The 7-point scale is as follows:

- 1 = strongly disagree**
- 2 = disagree**
- 3 = slightly disagree**
- 4 = neither agree nor disagree**
- 5 = slightly agree**
- 6 = agree**
- 7 = strongly agree**

1. In most ways my life is close to my ideal. _____
2. The conditions of my life are excellent. _____
3. I am satisfied with my life. _____
4. So far I have gotten the important things I want in life. _____
5. If I could live my life over, I would change almost nothing. _____

Use of the SWLS

The Satisfaction with Life Scale is in the public domain. Permission is not needed to use it.

(Diener, Emmons, Larsen & Griffin, 1985)

APPENDIX D. SHORT FORM SOCIAL DESIRABILITY SCALE

Directions: Below are a brief series of statements on certain attitudes and personal traits. Read them all and respond with T (true) or F (false), circling a response for each question. It is advisable not to read too much into each statement, but to give the first answer that comes to mind.

- | | | |
|---|---|---|
| 1. It is sometimes hard for me to go on with my work if I am not encouraged. | T | F |
| 2. I sometimes feel resentful when I don't get my way. | T | F |
| 3. On a few occasions, I have given up doing something because I thought too little of my ability. | T | F |
| 4. There have been times when I felt like rebelling against people in authority even though I knew they were right. | T | F |
| 5. No matter who I'm talking to, I'm always a good listener. | T | F |
| 6. There have been occasions when I took advantage of someone. | T | F |
| 7. I'm always willing to admit it when I make a mistake. | T | F |
| 8. I sometimes try to get even rather than forgive and forget. | T | F |
| 9. I am always courteous, even to people who are disagreeable. | T | F |
| 10. I have never been irked when people expressed ideas very different from my own. | T | F |
| 11. There have been times when I was quite jealous of the good fortune of others. | T | F |
| 12. I am sometimes irritated by people who ask favors of me. | T | F |
| 13. I have never deliberately said something that hurt someone's feelings. | T | F |

Reynolds, W. M. (1982). Development of reliable and valid short forms of the MCSDS. *Journal of Clinical Psychology*, 38, 119-125.

APPENDIX E. THE CAREER DECISION SCALE****Can purchase the actual test copies from PAR testing company****

Copyright by Samuel H. Osipow. Clarke G. Carney. Jane Winer. Barbara Yanico. &

Maryanne Koschier 1976 (3rd revision) all rights reserved

This is a protected and copyrighted questionnaire. Please visit

<https://www.parinc.com/Products/Pkey/53> to view the Career Decision Scale.

APPENDIX F. ATHLETIC IDENTITY MEASUREMENT SCALE

Directions: On a scale from 1 – 7 (1 being strongly agree and 7 being strongly disagree) circle how strongly you agree with the following:

1. I consider myself an athlete

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

2. I have many goals related to sport

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

3. Most of my friends are athletes

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

4. Sport is the most important part of my life

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

5. I spend more time thinking about sport than anything else

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

6. I feel bad about myself when I do poorly in sport

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

7. I would be very depressed if I were injured and could not compete in sport

Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

APPENDIX G. THE MATHEWS' QUESTIONNAIRE

Directions: Please fill in the following questions as accurately and in as much detail as possible

1) Do you plan to play football at a professional level after graduation? Yes ____ No ____

2) Do you plan to retire from collegiate football before graduation? Yes ____ No ____
If so, when and why?

3) How difficult do you anticipate your transition out of sport will be? Rate on a scale from 1 (*not difficult at all*) to 10 (*extremely difficult*)?

1 2 3 4 5 6 7 8 9 10

Explain.

4) On a scale from 1 to 10, 1 being *not a lot* and 10 being *an extreme amount*, how much planning have you put into your career after graduation from college?

1 2 3 4 5 6 7 8 9 10

Explain.

- 5) If you do not play football at the professional level after graduation, what career options are of interest? List them below in order of interest, or put *I do not know* if you do not know.

1. _____

2. _____

3. _____

- 6) How do you feel about your team's win-lose record this year? How did it affect you personally? Please explain.

- 7) Do you think your university's student-athlete services department has helped you to make post college career decisions? Yes ____ No ____

Explain.

- 8) Do you think the faculty and staff in your major have helped you to make post college career decisions? Yes ____ No ____

Explain.

- 9) If you were to stop playing football at the end of this season, what are the top 3 things that would help you the most during your transition process out of sport?

1. _____

2. _____

3. _____

APPENDIX H. EMAIL SCRIPT (D-I)

Dear member of the BGSU football team!

I am pleased to invite you to participate in my master's thesis study that is investigating collegiate football players and their transition out of sport. I am interested in learning about ways to help athletes manage their transition out of competitive sport after graduation from college. I hope that you will decide to participate in my study!

To participate, you must be 18 years of age or older. Participation is voluntary; however, I would greatly appreciate your willingness to be in my study. Participation includes completing several surveys, which will take approximately 20-30 minutes to complete. The surveys are related to the importance of football in your life and for your well-being.

If you are interested in participating in my study, please meet me outside of the Student-Athlete Services Center on Wednesday, April 11, 2018 anytime between 1 to 4 pm or Thursday, April 12, 2018 anytime between 1 and 4 pm. Later dates will also be available the following week.

If you have any questions about participating in this research, please contact me at 440.749.8114 or at amathew@bgsu.edu. If you have any questions about your rights as a research participant, you can contact the Institutional Review Board at Bowling Green State University (phone: 419 - 372-7716, email: orc@bgsu.edu).

Thank you for considering my request for your help, and I hope to meet you soon!

Alyssa Mathews

Master's Student

Bowling Green State University

amathew@bgsu.edu

APPENDIX I. EMAIL SCRIPT (D-III)

Dear members of the Mount Union football team!

I am pleased to invite you to participate in my master's thesis study that is examining collegiate football players and factors that influence their transition out of sport. I am interested in learning about ways to help athletes manage their transition out of competitive sport after graduation from college. I hope that you will decide to participate in my study!

To participate, you must be 18 years of age or older. Participation is voluntary; however, I would greatly appreciate your willingness to be in my study. Participation includes completing several surveys, which will take approximately 20-25 minutes to complete. The surveys are related to the importance of football in your life and for your well-being.

If you are interested in participating in my study, please meet me at the Gulling Training Center tomorrow Tuesday, May 1, 2018 anytime between 1:30 pm and 5:30 pm or Wednesday, May 2, 2018 anytime between 1:30 pm and 5:30 pm.

If you have any questions about participating in this research, please contact me at 440.749.8114 or at amathew@bgsu.edu.

Thank you for considering my request for your help, and I hope to meet you soon!

Alyssa Mathews

Master's Student

Bowling Green State University

APPENDIX J. INFORMED CONSENT FORM (D-I)

Title: The Student-Athlete Retirement Process: Athletic Identity, Career Maturity, and Subjective Well-being

Primary Investigator: Alyssa Mathews, Graduate Student, School of Human Movement, Sport, & Leisure Studies (HMSLS) at Bowling Green State University (BGSU)

Advisor: Dr. Bonnie Berger, Professor, School of HMSLS at BGSU

Committee: Dr. Lynn Darby, Professor, School of HMSLS at BGSU
Dr. David Tobar, Associate Professor, School of HMSLS at BGSU

Purpose

The purpose of this study is to look at select factors that affect the transition process out of sport, and how NCAA Division and Year in School affect these factors.

Benefits

Your help in this study will increase your own knowledge about what life after college sport will be like. Your help will also provide researchers with more information about the factors that influence the change into life without sport involvement.

Risks

The risk of playing a part in this study is no greater than that in daily life. You can choose to end your involvement at any point of the study. This will not affect your relationship with the researchers or Bowling Green State University.

Procedure

Your help includes participating in one testing session. This session will be between 30 to 45 minutes. You will be asked to complete seven forms related to select factors that have been found to influence the transition out of sport. You do not have to respond to any question that makes you feel uncomfortable.

Confidentiality

Any mention of your name and other information that could identify your involvement will be kept private. To ensure your privacy, you will be asked to give the last three digits of your cell number and the last two digits on your Student ID card for proof of identity. The data you provide will be kept in a filing cabinet that will be locked. All data will be kept in my advisor's locked office at BGSU. Data also will be stored on a password-protected computer as needed.

Contact Information

Researcher - Alyssa Mathews - (phone: 440-749-8114, email: amathew@bgsu.edu)
Advisor - Dr. Berger - (phone: 419- 372-6911, email: bberger@bgsu.edu)

BGSU IRB - APPROVED FOR USE
IRBNet ID # _1193105_
EFFECTIVE _04/03/2018_
EXPIRES _02/12/2019_

If you have any questions about your rights as a research participant, contact the Chair of the Institutional Review Board at Bowling Green State University (IRB).

IRB – (phone: 419-372-7716, email: orc@bgsu.edu)

Signing below confirms that you are agreeing to be a participant in this study and that you have been educated on the following:

- You are 18 years of age or older
- Risk are no greater than that in daily life
- All data will be kept confidential
- Participation is voluntary
- You may end your participation at any time during the study
- The procedures of this study have been identified and made clear
- A copy of this form will be provided to you at the end of this study
- If requested, a summary of the results will be provided to you
- You will not share to anyone outside this study who chose to participate in this study.

Last 3 digits of cellphone

Last 2 digits on your Student ID card

Printed Name

Signature

Date

APPENDIX K. INFORMED CONSENT FORM (D-III)

Title: The Student-Athlete Retirement Process: Athletic Identity, Career Maturity, and Subjective Well-being

Primary Investigator: Alyssa Mathews, Graduate Student, School of Human Movement, Sport, & Leisure Studies (HMSLS) at Bowling Green State University (BGSU)

Advisor: Dr. Bonnie Berger, Professor, School of HMSLS at BGSU

Committee: Dr. Lynn Darby, Professor, School of HMSLS at BGSU
Dr. David Tobar, Associate Professor, School of HMSLS at BGSU

Purpose

The purpose of this study is to look at select factors that affect the transition process out of sport, and how NCAA Division and Year in School affect these factors.

Benefits

Your help in this study will increase your own knowledge about what life after college sport will be like. Your help will also provide researchers with more information about the factors that influence the change into life without sport involvement.

Risks

The risk of playing a part in this study is no greater than that in daily life. You can choose to end your involvement at any point of the study. This will not affect your relationship with the researchers or the University of Mount Union.

Procedure

Your help includes participating in one testing session. This session will be between 30 to 45 minutes. You will be asked to complete seven forms related to select factors that have been found to influence the transition out of sport. You do not have to respond to any question that makes you feel uncomfortable.

Confidentiality

Any mention of your name and other information that could identify your involvement will be kept private. To ensure your privacy, you will be asked to give the last three digits of your cell number and the last two digits on your Student ID card for proof of identity. The data you provide will be kept in a filing cabinet that will be locked. All data will be kept in my advisor's locked office at BGSU. Data also will be stored on a password-protected computer as needed.

Contact Information

Researcher - Alyssa Mathews - (phone: 440-749-8114, email: amathew@bgsu.edu)
Advisor - Dr. Berger - (phone: 419- 372-6911, email: bberger@bgsu.edu)

BGSU IRB - APPROVED FOR USE
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IRB – (phone: 419-372-7716, email: orc@bgsu.edu)

Signing below confirms that you are agreeing to be a participant in this study and that you have been educated on the following:

- You are 18 years of age or older
- Risk are no greater than that in daily life
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- Participation is voluntary
- You may end your participation at any time during the study
- The procedures of this study have been identified and made clear
- A copy of this form will be provided to you at the end of this study
- If requested, a summary of the results will be provided to you
- You will not share to anyone outside this study who chose to participate in this study.

Last 3 digits of cellphone

Last 2 digits on your Student ID card

Printed Name

Signature

Date