The Relationship Between Social Networking and Student-athlete Well-Being

by

Lindsay K. Portela

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Key Terms: Student-athlete, Emerging Adulthood, Athletic Identity, Social Networking, Well-being

Approved by

Jill Meyer, Chair, Associate Professor of Special Education, Rehabilitation, and Counseling
Jamie Carney, Department Head, Humana-Germany-Sherman Distinguished Professor of Special Education, Rehabilitation, and Counseling
Jessica Melendez Tyler, Assistant Clinical Professor of Special Education, Rehabilitation, and Counseling
Malti Tuttle, Assistant Professor of Special Education, Rehabilitation, and Counseling

Abstract

Young adults ages 18-29 were found to be the most avid users of social networks (Pew Research Center, 2018). Engagement with social networks has been found to have both positive and negative impacts on well-being. Research has explored the relationship between social network use and college students, however there has been little focus on how the subpopulation of student-athletes are impacted. The purpose of this study was to develop an understanding of the relationships among student-athlete social networking use, athletic identity, and well-being through the lens of emerging adulthood. Participants of this study were a national sample of 95 Division I student-athletes. The research study established that student-athletes endorse the five dimensions of emerging adulthood and have a strong athletic identity. In addition, this study found that the less student-athlete's used social networking the higher they scored on autonomy/ PWB. There were no differences in social networking use based on age, gender, or academic year however, scores on the autonomy subscale of PWB decreased as student-athletes got older. Further, female student-athletes scored higher on the autonomy and positive relations with others subscales of PWB. Lastly, the results showed that having more satisfying relationships with others and having goals in life results in higher levels of athletic identity for student-athletes. These findings can be used by counselors, athletic department personnel, and other professionals working with student-athletes to improve well-being and improve the overall student-athlete experience.

Key words: Student-athlete, Emerging Adulthood, Athletic Identity, Social Networking, Well-being

Dedication

This dissertation is dedicated to my grandfather, James B. Pirtle, thank you for showing me that anything is possible if you work hard enough.

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Chapter I

Introduction and Background

In the fall of 2016, 16.9 million students were enrolled in U.S. colleges which is an increase of 28 percent from 2000, when enrollment was 13.2 million students (National Center for Educational Statistics, 2018). With increases in the typical, college-aged student population (also known as the emerging adult [EA] population) and increase in enrollment rates (National Center for Educational Statistics, 2018), the emerging adult population is experiencing greater interest from researchers, educators, administrators and those working with this population within the higher education setting (Taber & Blankemeyer, 2015). Arnett's theory of emerging adulthood is a developmental phase between adolescence and young adulthood (Arnett, 2006). The theory focuses on individuals ages 18-25 and examines this distinct period demographically, subjectively, and for identity exploration (Arnett, 2004). Arnett (2006) stated that many emerging adults begin to feel like an adult at 18 or 19, but do not completely feel like an adult until their mid - to late - 20's because they are not yet confident in accepting responsibility, making decisions, or having financial independence. As student-athletes are typically between the ages of 18 and 25, falling within the traditional college student age range, they are in the developmental stage of emerging adulthood. Exploring student-athlete well-being within the emerging adulthood framework will allow counselors and athletic department personnel to develop an understanding of the unique experiences of student-athletes as emerging adults and develop specific interventions to meet the varying needs of this population.

The term "student-athlete" was developed by the National Collegiate Athletic Association (NCAA) in 1950's to reference college students that participate in collegiate athletics and emphasize the association's belief that student-athletes are students first and

athletes second, (NCAA, 2018a; McCormick & McCormick, 2006; Sack & Staurowsky, 2005). While there is a plethora of research about factors related to college students' well-being, such as social networking, academic performance, and social connection there is little research on how social networking impacts student-athlete's well-being. There is a need for researchers to explore how internal and external factors contribute to student-athletes' well-being due to an increased focus by the NCAA on promoting student-athlete mental health and well-being (NCAA Multidisciplinary Taskforce, 2016). While athletic departments, coaches, and athletic trainers have begun to screen student-athletes for several factors related to well-being and mental health, such as alcohol use, anxiety, and depression among others, there is no screening tool endorsed by the NCAA that is specifically related to the use of social networking. Conducting research focused on student-athletes' well-being in relation to their social networking use will allow those working with this population to better support student-athletes in navigating social media and managing social relationships as they matriculate through college, focusing on improved mental health and well-being and improving the overall student-athlete experience.

According to the most recent NCAA bylaws (2018) a student-athlete is a student who has been solicited by a member of the athletic staff or other interested party associated with athletics and who actively participates on one or more intercollegiate team under the jurisdiction of the athletics department (bylaw 12.02.14). Due to the emphasis placed on the identity of "student" followed by "athlete" by the NCAA, one can conclude that student-athletes share many of the same responsibilities and stressors as their non-athlete peers. College has been found to be a stressful experience for students, a time when young adults experience freedom and find themselves navigating developmental tasks along with interpersonal relationships and academic responsibilities (Beard, Elmore, & Lange, 1982). However, student-athletes also face several

stressors unique unto them such as, balancing athletic and academic activities, isolation from peers due to athletic activities, balancing success or lack thereof, managing relationships, and the termination of one's athletic career (Parham, 1993).

In addition to common stressors faced by college students, social networking sites have become an area of interest for researchers due to the population's ability to quickly adopt new technologies and engage in social networks (Lewis, Kaufman, & Christakis, 2008). Social networking sites are web-based services that allow individuals to construct profiles in order to connect with other users to develop and maintain social connections (Ellison & Boyd, 2013). In 2005, 5% of American adults used social networks. Currently, 69% of the public utilizes social networking sites to connect with others, share information, engage with content, or entertainment (Pew Research Center, 2018). The growth in use of social networking sites in the last 13 years has largely impacted the way individuals form and maintain social connections as well as how they communicate with one another. Browning and Sanderson (2012), stated that social networking and the college experience are inseparable, and found that college students disclose personal information via social networks freely and frequently. Unlike typical college students, student-athletes are more visible and subject to greater scrutiny and criticism in relation to both their personal choices and athletic performance which is heightened by social networking platforms (Browning & Sanderson, 2012). Student-athletes are publicly praised and criticized by the media and by people whom they have never met, which in turn influences the student-athletes' self-worth (Etzel, Ferrante, & Pinkney, 2002). The increase in use and prominence of social networking in the college student population indicates a need to understand the relationship between student athlete's social networking use and their well-being.

This chapter provides a review of the literature of the primary factors in the current research study including emerging adulthood, social networking use, athletic identity, and well-being. Additionally, factors such as age, gender and number of years involved with sport will also be examined to identify differences that may exist with regard to these factors. Following a thorough review of the literature, there is no empirical research to date focused on exploring the relationship between social networking use and student-athlete well-being through the lens of emerging adulthood. This research study aims to fill the gaps in the literature related to the relationships among student-athlete social networking use, emerging adulthood, student-athlete athletic identity, and well-being.

Emerging Adulthood

In recent decades Arnett's established the theory of emerging adulthood, which is a developmental phase between adolescence and young adulthood during which individuals experience delays in attainment of adult roles and social expectations (Arnett, 2000; 2006) compared to past generations. The theory focuses on individuals ages 18-25 and looks at this distinct period demographically, subjectively, and for identity exploration (Arnett, 2004; Galambos, Barker, & Krahn, 2006). The path toward individuality and adulthood is not linear, some individuals actively construct their developmental trajectory, whereas others may follow a more predictable course (Schwartz, Côté & Arnett, 2005).

Emerging adulthood is a theory that was developed as industrial societies began to change and shift toward allowing for an extended period of independent exploration (Arnett, 2000). This particular developmental theory, for industrialized cultures, identifies a developmental stage that precedes young adulthood where the individual does not feel like an adolescent or an adult (Tanner, 2006). Due to the cultural shift from the traditional trajectory of

adulthood, emerging adults are now focused on earning a college degree and then finding an occupation, which results in delays of getting married and starting a family (Arnett, 2005).

Emerging adults do not see themselves as adolescents nor do they see themselves entirely as adults (Arnett, 2000, 2006). Becoming an adult is not based on the traditional milestones, such as earning a degree or getting married, but rather on responsibility and stability (Arnett, 2000). Arnett (2006) further stated that many emerging adults begin to feel like an adult at 18 or 19 but do not completely feel like an adult until their mid - to late - 20's because they are not yet confident in accepting responsibility, making decisions, or having financial independence.

Arnett (2000) postulated that emerging adulthood was different from other lifespan periods or terms, such as late adolescence, post adolescence, young adulthood or transition to adulthood, and can be distinguished demographically, subjectively and psychologically per the five characteristics of emerging adulthood. Arnett (2004) identified five distinguishing characteristics of emerging adulthood which are the age of: *identity exploration, instability, self-focus, feeling in-between*, and *the age of possibilities and optimism*. The five features of emerging adulthood are helpful when conceptualizing the developmental process compared to other life stages. *Identity exploration* for EA is a process where young people are identifying their wants and needs in terms of work, school, and romantic and social relationships (Arnett, 2011). Throughout the developmental process several changes take place in relation to future possibilities, such as living situations, decisions about continued education, and interpersonal relationships (Arnett, 2000). *Instability* is a time when young adults make necessary changes in order to attain future life goals (Arnett, 2011). The exploration of individual wants and needs often results in increased independence. *Self-focus* is a time when becoming self-sufficient is a priority and learning about one's wants and needs is vital, prior to committing to marriage,

children, or a career (Arnett, 2015). At times during emerging adulthood one may feel as though they are no longer a child, but also not fully an adult, which is referred to as *feeling in between.* Yet, there is also the *age of possibilities,* a time when emerging adults are still optimistic about the future and feel that there are still several possibilities for life and career choices (Arnett, 2015). The factors of emerging adulthood provide a snapshot for the developmental processes of young adults attempting to make the transition from adolescence to adulthood, of which a large component can be the college experience. As student-athletes are typically between the ages of 18 and 25 thy are in the developmental stage of emerging adulthood. Exploring student-athlete well-being within the emerging adulthood framework will allow counselors and athletic department personnel to develop an understanding of the unique experiences of student-athletes as emerging adults and develop specific interventions to meet the varying needs of this population.

National Collegiate Athletic Association

College sports have become a prominent feature in the college experience beginning with the inception of the NCAA in 1910 (Chen, Snyder, & Manger 2010; Toma, 1999). The National Collegiate Athletic Association (NCAA) is the nonprofit governing body of college athletics. The structure of the NCAA is broken down into six sections and is currently under the supervision of President Mark Emmert. There are the administrative services, the championship and alliances office, the communications department, the NCAA eligibility center, the enforcement staff, and the membership and student-athlete affairs office; all overseen by the office of the president, which also contains legal affairs, government relations and human resources. According to the NCAA in 1973 the three divisions (Division I, II, III) were created for both competition and legislative purposes (NCAA, 2018b). Currently in the NCAA there are

over 460,000 student-athletes participate in 24 sports annually at over 1,000 colleges within the NCAA Division I, II, and III levels (NCAA, 2018b). According to the NCAA website more than $2.7 billion in athletic scholarships are available to Division I and II student-athletes along with elite athletic training, medical services, academic support services, lodging, and meals (NCAA, 2018c). Presently, in NCAA athletics, there are 181,512 student-athletes in Division 1 athletics with 36% receiving athletic scholarships, 121,445 student-athletes in Division II athletics with 25% receiving athletic scholarships, and 192,035 student-athletes in Division III athletics with 0% receiving athletic scholarships competing at their respective universities (NCAA, 2018c).

Student-Athletes

The term, student-athlete, has been defined by the most recent NCAA bylaw 12.02.14 (NCAA, 2018a) as "a student whose enrollment was solicited by a member of the athletics staff or other representative of athletics interest with a view toward the student's ultimate participation in the intercollegiate athletics program." Student-athletes face unique challenges and responsibilities compared to non-athlete undergraduate students (Humphrey, Bowden, & Yow, 2013). University student-athletes are faced with complex pressures, extraneous of those of normal student life, that can impact well-being and performance (Humphrey, et al., 2013; Neal et al., 2013).

Specifically, student-athletes have to balance athletics and academics, social and athletic responsibilities, emotions related to athletic success and failures, potential athletic injury, competition pressures, relationships, and time constraints related to sport (Hyatt, 2003). While research on stressors and challenges are plentiful, few studies have reported experiences of student-athletes from a strengths-based perspective. Gaston Gayles (2009) found that when equal time is spent engaging in academic and athletic activities, student-athletes tend to have a positive

experience. Ryan (1989) found that while the pressures of athletic competition, time commitments, and effort required to be successful is often thought to be stressors, they can also be viewed as benefits to the student-athlete.

Another line of research rightfully suggests individuals participating in intercollegiate athletics have the opportunity to glean numerous holistic personal development benefits, including physical fitness, mental focus, emotional maturity, spiritual reflection, and skills such as leadership, communication, time management, self-discipline, and teamwork (Hirko, 2009; Howard-Hamilton & Sina, 2001; Pascarella & Blimling, 1996; Watson & Kissinger, 2007). As a result, universities employ a variety of personnel to foster this holistic educational experience – essentially fostering their physical, psychological, and spiritual development. Various respective job responsibilities and duties, strength and conditioning staff improve physical "bigger, faster, stronger" measurables; athletic trainers and the sports medicine team actively treat and rehabilitate physical injuries; coaching staff members advise, scheme, and motivate regarding performance and strategy in competition; sport nutritionists educate athletes regarding weight management techniques; sport psychology consultants (SPC) educate athletes on psychological skills to enhance performance and well-being; academic advisors and/or academic tutors to assist athletes with their study habits and course material; licensed social workers and/or licensed mental health professionals assist with diagnosing and treating psychological issues and disorders; and life skills coordinators provide opportunities for interpersonal skills enhancement and community service (Dzikus, Hardin, & Waller, 2012).

Student-athletes, within educational settings, are often considered a unique subpopulation due to their contributions and interactions within the campus community (Anderson, 2012). Hebard and Lamberson (2017), stated that athletes can be identified as an "at-risk" population

due to public perception of privilege and physical ability, leaving athletes vulnerable to stigma and undiagnosed symptoms of mental health concerns. Similarly, Markser (2011), reported diagnoses of depression and anxiety disorders are common among student-athletes, and they are more likely to suffer from disordered eating and drug and alcohol use than their non-athlete peers (Sinden, 2010). It is estimated that between 10% and 15% of student-athletes experienced psychological issues that resulted in need of counseling in comparison to the general student population in which 8% to 9% experienced psychological issues in need of counseling (Watson & Kissinger, 2007).

While much attention is given to their athletic achievements by the general public and healthcare professionals, there is a tendency to minimize the emotional strains and mental health issues related to sports (Bär & Markser, 2013; Markser, 2011; Reardon & Factor, 2010). When an individual is unable to manage these multiple stressors, the student-athlete may not only experience impairment in athletic performance, but their overall well-being and mental health may suffer as well (Beauchemin, 2014; Gardner & Moore, 2004). Concern for the well-being of student-athletes has traditionally been restricted to their physical health and its influence on performance outcomes in sport and academia (Beauchemin, 2014). It has become apparent through a review of the literature that the conceptualization of student-athletes' health is shifting to become more holistic and encompass well-being (Agnew, Henderson, & Woods, 2017). Understanding the specific stressors of the student-athlete population is important for athletic department personnel and counselors hoping to improve the population's well-being.

Student-athletes at Division I institutions, unlike a majority of their non-athlete peers, are easily identifiable figures on college campuses (Gaston-Gayles, 2003). They attend college in part to excel at the highest amateur level of their sport (Harrison & Harrison, 2009). The level of

visibility can create different expectations about how student-athletes carry themselves, respond to adversity, and perform both physically and mentally. Division I student athletes face all of the challenges experienced by other students in the general population with regard to social and academic adjustment to college in addition to sport specific demands (Gaston-Gayles, 2003). Student athletes often spend more than 40 hours a week on sport-related activities, as well as coping with the mental fatigue, physical exhaustion, and nagging injuries that afflict those who participate in college sports (Comeuax, 2011). Due to the increased visibility, exposure to media, and unique stressors related to athletic participation this study will focus solely on Division I emerging adult student-athletes' social media use, athletic identity, and well-being.

Student-athletes as Emerging Adults

Within the EA population, it is estimated that nearly 460,000 academic emerging adults are student-athletes with their own established subculture (NCAA, 2018a). Student-athletes are a unique subpopulation of emerging adult students on college campuses who have atypical lifestyles with uncommon experiences that provide for diverse developmental needs and opportunities (Comeaux & Harrison, 2011; Etzel, Ferrante, & Pinkney, 2002; Hill, Burch-Ragan, & Yates, 2001). Applying the theory of emerging adulthood to this explore the relationship between student-athlete social networking use and well-being will help counselors and athletic department personnel better understand this population as well as their unique position and belief system. This is instrumental to helping this population as the theory helps to explain how our social changes have affected this age group and why their responses to social connection and use of social networking, while different from past generations, is logical.

Upon matriculation, a majority of students often experience significant changes to their own physical, emotional, mental and spiritual well-being (Rozmus, Evans, Wysochansky &

Mixon, 2005). While these new changes can be viewed as favorable, the pressures associated with academics, socialization to college life and a new discovery of empowerment over one's decisions and lifestyle, can result in behaviors that may impact a student negatively (Rozmus, Evans, Wysochansky & Mixon, 2005; Von Ah, Ebert, Ngamvitroj, Park & Kang, 2004). Under the umbrella of emerging adulthood student-athletes, like their non-athlete peers have similar transitions and risks but often remain at heightened levels of stress due to the demand of balancing the dual roles of being a student and an athlete (Armstrong & OomenEarly, 2009; Brown, Glastetter-Fender, and Shelton, 2000; Cresswell, 2009; DeFreese & Smith, 2014; Dyson & Rank, 2006; Eklund & Cresswell, 2007; Giacobbi, Lynn, & Wetherington, 2004; Hammond, Gialloreto, Kubas, & Davis, 2013; & Horton & Mack, 2000).

Emerging adulthood is a time of instability in the lives of the individuals in this stage of life and this population has the highest rate of residential change, indicating the profound changes that emerging adult are experiencing (Arnett, 2000; 2006). Some emerging adults remain at home with their parents, others live in college dorms, and others live independently. Like non-athlete college students, student-athletes have instability in residential status. Student-athletes may live on or off campus and typically move either dorm rooms or apartments yearly.

During emerging adulthood, most people have the freedom to make decisions for their life independently of others (Arnett, 1998). Emerging adults recognize that this is a time in their life when they do not have to answer to anyone other than themselves; they also understand that the goal of this period is to become self-sufficient as that is what they see as becoming an adult (Arnett, 1998, 2004). Like most college students, student-athletes are not yet autonomous in making decisions and often rely on parents or coaches for support. However, because of the athletic demands on the student-athletes, investments in other social roles are often reduced

(McPherson, 1980) and this lack of exploration with different social groups may not allow for the student-athletes to move through the emerging adulthood stage. Pearson & Petitpas (1990) have found that student-athletes were less likely to explore other career or educational options because of this intense involvement in, and commitment to, athletics, which does not allow for the work of identity development.

Additionally, studies have shown student-athletes are often faced with additional stressors such as primary identity issues, time management stressors (i.e., practices, competitions, travel, balancing academic commitments, missing class), relationships with coaches, parents, professors and teammates, and social isolation from non-athlete students. These additional stressors have the potential to manifest as emotional, physical or developmental difficulties within the student-athlete subpopulation (Watson & Kissinger, 2007), and may negatively impact life satisfaction and well-being (DeFreese & Smith, 2014; Giacobbi, Lynn, & Wetherington, 2004; Watson & Kissinger, 2007). In addition, the stress and pressure experienced by student-athletes due to their academic workload combined with their sport-related time commitments can be problematic in regard to motivation, holistic well-being, and learning among other factors (Armstrong & Oomen-Early, 2009). Exploring student-athlete well-being within the emerging adulthood framework will allow counselors and athletic department personnel to develop an understanding of the unique experiences of student-athletes as emerging adults and develop specific interventions to meet the varying needs of this population and their improve well-being.

Athletic Identity

Research and literature focused on identity development of college students is vast, in recent years there has been a focus on exploring how student-athletes engage in identity

development in relation to their participation in intercollegiate athletics. This identity is part of a larger self-concept, which is characterized as a self-description (i.e., subjective measure) more than a self-evaluation (i.e., objective measure) and defined as the assortment of roles, attributes, and behaviors that adequately describe ourselves to establish self-esteem and self-worth (Duda, 1989). In sport, the interaction between an athlete and their environment (e.g., family, friends, coaches, and the media) describes the self-perception theory that states behavior is given credibility by the positive or negative reinforcement advocating or opposing our behavior (Duda, 1989).

Brewer, Van Raalte, and Linder (1993) termed athletic identity as the level of identification one has with the athlete role, which is comprised of the cognitive, affective, behavioral, and social obligations associated with identifying with the athlete role. Two structures compose an athletic identity: cognitive and social. The cognitive structure influences the processing of personal information, while the social structure provides opportunities to engage in social interactions (Brewer et al., 1993). Due to the impact that athletic identity has on student athletes it is important to explore the degree to which student-athletes identify with the athlete role, as it can affect how they navigate the college experience and interpret the world around them.

It has been noted that for athletes, athletic identity holds a unique position in relation to other identities because it is formed early in life (Webb, Nasco, Riley, & Headrick, 1998). Additionally, for athletes, identification with their role in sports begins as early as childhood and continues throughout their developmental and adult years (McPhersoson, 1980). Competing in intercollegiate athletics can provide student-athletes with the opportunity to develop a strong sense of self, as well as a means to fit in a social group such as a team (Brewer, Van Raatle, &

Linder, 2012). Griffith and Johnson (2002) suggested that participation in athletics while in college can provide a student with valuable life skills and psychological benefits that help facilitate identity development.

An athlete's identity in sport is comprised of both public and private aspects (Webb, et al., 1998). The authors define an athlete's public athletic identity as the extent to which others know and view the individual as an athlete and is often directly related to athletic performances. The more attention and positive reinforcement an athlete receives related to performance, the more salient athletic identity becomes (Wiechman & Williams, 1997). The student-athlete's public athletic identity often shapes their public reputation (Webb et al., 1998). Horton and Mack (2000) suggested that the strength of athletic identity relative to a person's self-concept varies with past and present involvement in sport, as well as relative successes and failures in the athletic domain. Findings from various studies (Ahmadabadi, Shojaei, & Daneshfar, 2014; Brewer & Cornelius, 2010; Brewer, Selby, Linder, & Petitpas, 1999; Martin, Fogarty, & Albion, 2014) demonstrate that athletes who experienced a poor competitive season indicated a decline in athletic identity when compared with athletes who had a successful competitive season. The second aspect of one's athletic identity is their private athletic identity which reveals how internalized the role of an athlete has become to the individual. The private profile also encompasses the individual's assessment of himself or herself as an athlete, which includes feelings and thoughts about people and events (Webb et al., 1998). The public and private components of one's athletic identity combine to form one's commitment to their athletic identity.

Strong identification with the athletic identity in relation to participation in intercollegiate athletics has been found to have both positive and negative impacts on student-athletes.

Numerous factors such as a motivation, win at all costs attitude, media influence, team membership, and the emphasis placed on performance outcomes contribute and strengthen a student-athlete's identity in sport (Hill et al., 2001). Brewer et al. (1993) postulated that a high athletic identity may prove to be beneficial to an athlete (e.g. Hercules' muscle) but may also be a liability (e.g. Achilles' heel).

Brewer et al. (1993) found that strong identification with the athlete role during sport participation may have social implications including an increased sense of belonging to the sport or to the team, close relationships among coaches and teammates, as well as increased social status amongst peers. There is also evidence that strong athletic identity is associated with overall health and physical fitness (Marsh, 1993), higher global self-esteem and social self-concepts (Marsh, Perry, Horsely & Roche, 1995), and positive rehabilitation outcome in ACL-injuries (Everhart, Best & Flanigan, 2013). Strong and exclusive athletic identity has also been found to have a positive impact on acquisition of transferable skills such as work ethic, time-management, goal-oriented behavior, discipline, commitment, team-work skills, and leadership qualities (McKnight, Bernes, Gunn, Chorney, Orr, & Bardick, 2009). Lastly, research has established positive outcomes associated with maintaining a strong degree of an athletic identity, including pronounced increases in self-esteem, feelings of global competence, stable sense of self, increased self-confidence and body image, lower anxiety, and a larger social network as a result of successful athletic performance (Bowker, Gadbois & Cornock, 2003; Horton & Mack, 2000; Ryska, 2002).

Webb, Nasco, Riley and Headrick (1998), proposed that, since elite sport participation is fundamentally different from other role responsibilities and identities, negative consequences can ensue as a result of strong and exclusive athletic identity. Ryska (2002) noted that over-

commitment to an athletic role restricts some student-athletes' identity development due to their commitment to sport, their role as an athlete, and obligations to athletic development resulting in a lack of development in other areas such as academic, vocational, and social achievement. Further, high athletic identity increases an athlete's likelihood of experiencing difficulty navigating sport career or status changes, including career-threatening injuries or the end of athletic career (Murphy, Petipas, & Brewer, 1996). By using Brewer, Van Raatle and Linder's definition and the scale they developed to measure athletic identity, this study plans to examine the relationships among student-athlete's athletic identity in relation to their social networking use and well-being through the lens of emerging adulthood.

Social Networking

Social networking can be defined as platforms that allow individuals and organizations to create content and engage with others in digital environments (Deil-Amen, 2011). Additionally, Al-Bahrani and Patel (2015) define social networking as virtual communities or networks which allow for the sharing of information and ideas, increased interaction, and development of communities. Within the literature the terms social network and social media have been used interchangeably, for the purpose of this research study the term social networking will be utilized. The Pew Research Center (2018) published findings that highlighted the steady increase of social media use since 2005. There has been an 81 percent increase in social media use by U.S adults ages 18 to 29 from 2005 to 2018 (Pew Research Center, 2018).

Much of the research on social networks and college students focuses on understanding characteristics of those who use social network sites. Driving the research is the need to understand how and why individuals interact with social networks, how their interactions impact

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academic success, and motivations for use of social network sites (Ross, Orr, Sisic, Arsenault, Simmering, & Orr, 2009).

According to Duggan and Smith (2013) the five most used social network sites are Facebook, LinkedIn, Pinterest, Twitter, and Instagram. Nadkarni and Hofmann (2012) found that people are motivated to use Facebook for two primary reasons: a need to belong and a need for self-presentation. In their analysis, Toma and Hancock (2013) found that Facebook profiles help satisfy individuals' need for self-worth and self-integrity. Alternatively, a Pew Research Center project found that the most popular reasons for using social media included staying in touch with current friends and family, although other reasons emerged as well: making new friends, reading comments by celebrities and politicians, and finding potential romantic partners (Duggan & Smith, 2013). Dwyer, Hiltz, and Passerini (2007) found that college students participate online to manage relationships and increase communication. Another reason college students use social networks is for the shared experience and knowledge sharing (Liccardi et al., 2007). While the reason individuals use social networking sites is varied, there has undoubtedly been a rise is social networking site usage in recent years (Dwyer, Hiltz, and Passerini, 2007; Pew Research Center, 2018) therefore warranting additional research to fill gaps related to social networking usage and well-being.

Social Networking and Emerging Adults

The largest demographic of social networking site users are individuals between the ages of 18 and 29 years old (Pew Internet, 2018), which coincides with emerging adulthood, the years of crucial change and development in a young person's life. This period for which important social development occurs is neither late adolescence nor early adulthood but actually occurs between them which has been coined emerging adulthood (Arnett, 2000). Pew Research Center

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(2018) reported that social media use by emerging adults increased from 84% in 2013 to 90% in 2015.

       According to Pempek, Yermolayeva, and Calvert (2009) social networking sites provide emerging adults with a platform to construct profiles and interact with others that align with identity markers such as developing and maintaining friendships provided by Arnett (2000) and Erikson (1963). Pempek et al. (2009) used Arnett's (2000) theoretical framework of emerging adulthood in order to identify how much time college students use social networking websites, the motivations for use, and how they use social networking sites. The study consisted of 92 undergraduate students from a private university in a large metropolitan area who reported their social networking usage over a seven-day period and then given a survey related specifically to Facebook use. Findings indicated that the mean use of Facebook during the weekdays was 27.93 minutes per day and 28.44 minutes per day on weekends. Responses to open-ended questions about why students use Facebook respondents indicated nine reasons for using Facebook which include communicating with friends (87.78%), looking at or posting photos (35.87%), entertainment (25%), event identification/planning (25%), sending and receiving messages (13.4%), making or reading wall posts (11.96%), getting to know people better (11.96%), getting contact information (8.70%), and presenting oneself to others through the content in one's profile (4.35%). Of particular interest to the authors was the user's identity expression on social networking sites during emerging adulthood. Responses to the survey item "expressing identity/opinions" as a reason for using Facebook were lower than expected as 26.37% indicated "some" and 64.13% selected "not much." In addition, another aspect of emerging adulthood, romantic relationships, was not selected as a primary reason for use of Facebook as results showed 6.9% of respondents selected "some" and 91.95% selected "not much." The findings

indicate that social networking sites are a vital aspect of emerging adulthood and allow users to express themselves and interact with one another (Pempek et al, 2009).

As mentioned previously, living arrangements plays a large role in emerging adulthood and has been connected to the concept of autonomy (Arnett, 2000). Hargittai (2007) explored the differences between those who use social networking sites and those who do not and found that autonomy encourages social networking site usage in emerging adults. In a quantitative study of 1,060 first -year undergraduate students at the University of Illinois Hargittai (2007) found that 88% of participants reported using social networking sites, 74% reported using at least one social networking site often, and 12% reported not using any social networking sites. Hargittai (2007) finds that students who still live at home with their parents are significantly less likely to use Facebook than students who live independently or with roommates. Autonomy encourages Facebook participation, and beyond just the use of Facebook, Hargittai (2007) notes that living at home in general may not provide students with the same opportunity to get to know their peers as those who live on-campus and make use of social networking sites. Understanding how and why emerging adults engage with social networking sites is crucial for those working with this population in order to aid in their identity development. While the relationship between emerging adults and social networking sites has been explored, research that explores the relationship between emerging adults' social networking use and well-being is needed in order to better understand how social networking site usage impacts emerging adults.

Social Networking and Student-athletes

The literature involving social networking and athletes, or sport is minimal. According to a study of 2,000 college student-athletes social media use conducted by Fieldhouse Media (2018) of student-athletes surveyed, 98% have a Facebook account, 95% have a Twitter account, 99%

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have an Instagram account, and 93% have a Snapchat account. Student-athletes generally receive media-relations training that focuses on how to speak to reporters and give interviews, but the use of social media by student-athletes present dynamics that differ from speaking to reporters in traditional media contexts (Sanderson, 2011). Social media has a major impact on the communicative landscape of college athletics (Delia & Armstrong, 2015; Browning & Sanderson, 2012; Sanderson, 2011; Sanderson & Browning, 2013) as evidenced by the evolution of sport media and sport communication practices of many NCAA participating institutions (Clavio & Walsh, 2014; Sanderson & Hambrick, 2012). Social media has shifted from simply providing others with pertinent information to offering an interactive platform where intercollegiate athletics departments, programs, coaches, and athletes can connect with users in a more personal way (Browning & Sanderson, 2012; Sanderson, 2011). While the changing landscape of social networking in relation to intercollegiate athletics and student-athletes has been researched, the studies have mainly focused on social networking policy and implications for NCAA institutions.

Sanderson and colleagues have conducted qualitative studies and meta analyses of elite athletes' social networking habits (Browning & Sanderson, 2012; Sanderson, 2018; 2011; Sanderson & Browning, 2013; Sanderson, Browning, & Schmittel, 2015; Sanderson, Frederick, & Stocz, 2016; Sanderson, Snyder, Hull, & Gramlich, 2015; Smith & Sanderson, 2015) which have explored the relationship between elite athletes and social networking sites through a variety of lenses including identity development, social media policy, responses to critical tweets, and identity preservation. The studies reviewed in relation to student-athletes and social networking, while minimal, illustrate a gap in the literature related to the impact of social networking as it relates to student-athlete well-being.

Sanderson (2011) conducted a qualitative study which examined the messages student-athletes received from athletic department officials and coaches about their use of the social networking site Twitter. Semi-structured interviews were conducted with 20 student-athletes, including 10 football players, 5 men's basketball players, 3 women basketball players, and 2 baseball players at a Division I institution in the Southern United States. Sanderson (2011) found through thematic analysis that the messages student-athletes received in regard to their Twitter use fell in the following three categories: (non) training, surveillance/monitoring, and reactive training. The theme of *non-training* showed that most student-athletes assumed that rules existed regarding the use of Twitter but were unsure of the boundaries and received no specific training on the matter (Sanderson, 2011). Furthermore, most student-athletes interviewed indicated that they were only informed of policies regarding Twitter after a violation occurred. The theme of *surveillance/monitoring* highlighted that most student-athletes interviewed were aware that their respective universities utilized varying levels of monitoring their Twitter usage, whether it was being followed by staff affiliated with the organization or specific monitoring software (Sanderson, 2011). The final theme, reactive training, showed that instruction related to appropriate Twitter usage occurred after an incident occurred, highlighting universities' focus on repair instead of prevention (Sanderson, 2011). The findings supported previous research by Sanderson (2011), which pointed to the use of ambiguity by athletic departments social media policies to maintain power over student-athletes and reduce potential harm to their organization related to Twitter, but not to provide support or education for student-athletes about the possible negative impacts of social networking use.

According to Horton and Wohl (1956) parasocial interaction (PSI) is defined as the behavior individuals portray in relation to social interaction that is mediated and unreciprocated

towards media figures. Due to the increased digital connection between student-athletes and fans, Sanderson and Traux (2014) explored the maladaptive parasocial interactions aimed at student-athletes. Research on negative interactions on social networking sites in relation to student-athletes is needed to inform athletic department personal on how to address negative maladaptive parasocial interactions due to the increase in both intensity and frequency (Sanderson & Traux, 2014). There is specific attention given to student-athletes in particular due to the fact that they are younger, more impressionable to criticism, and negative social networking sites interactions may fracture their identity (Browning & Sanderson, 2012). The increased access granted to fans can also result in negative messages related to the student-athletes' performance and demeanor (Sanderson & Truax, 2014). Kassing and Sanderson (2015) developed the term "maladaptive parasocial interaction" (p. 4) to illustrate the negative messages received by athletes on social networking sites.

In order to explore the concept of maladaptive PSI and how it is expressed towards student-athletes, Twitter, Sanderson and Traux (2014) analyzed the messages sent to a University of Alabama football player following a rivalry game where the athlete's performance negatively impacted the outcome of the game on the social networking site Twitter. The researchers chose to limit the search to the social networking site Twitter due to previous research by Sanderson and Browning (2012) which identified student-athletes as heavy consumers of Twitter. A thematic analysis of the Twitter postings was utilized via the constant comparative methodology, where each individual tweet comprised a unit of analysis (Sanderson & Traux, 2014). The authors independently reviewed and coded the data resulting in 938 tweets which yielded four categories: belittling (9.1% of the sample), mocking (6.2% of the sample), sarcasm (3.4% of the sample), and threats (2.8 %); one unexpected theme that emerged was support for the student-

athlete (78.5% of the sample). The findings supported previous research related to PSI in that there has been a shift towards more extreme and emotional expressions, both positive and negative, from fans (Kassing & Sanderson, 2009; Sanderson, 2008) however, the theme of support was not expected. The authors provided implications for athletic department personal to help student-athletes cope with negative social networking site interactions, such as providing psychoeducation training regarding social networking, and increased support of student-athletes who have experienced this behavior. Providing such information through the lens of emerging adulthood may provide additional understanding of how social networking use impacts student-athletes.

Student-athlete social networking use has been explored qualitatively in relation to their experiences with negative parasocial interactions, formal training, and institutional policies. Additionally, research has found positive and negative relationships between college student's social networking use as well-being. Based on a thorough review, no quantitative studies focusing on investigating the relationship between student-athlete's social networking use and well-being were found in the current literature.

Well-being

Among researchers, the concept of well-being is multi-faceted and has been difficult to define and quantify (Dodge, Daly, Huyton, & Sanders, 2012; Forgeard, Jayawickreme, Kern, & Seligman 2011; Mitchell, Vella-Brodrick, & Klien, 2010; Pollards & Lee, 2003; Thomas; 2009; Ryff, 1989). One definition of well-being provided by Ryan and Deci (2001) described the construct as optimal experience and functioning. Deiner, Oishi and Lucas (2003) provided a definition of well-being as an overarching concept that allows one to evaluate their life using cognitive and affective aspects.

Traditionally, well-being has been classified into two approaches, hedonic and eudaimonic (Deci & Ryan, 2008). While some researchers view hedonic and eudaimonic well-being as distinct constructs, there is however, some criticism due to strong correlations between the two constructs (Joshanloo, 2016). Hedonic approaches to well-being involve the subjective experience of happiness or pleasure, presence of life satisfaction, the presence of positive feelings and sensations, and the absence of negative feelings and sensations (Kahneman, Diener, & Schwartz, 1999). The hedonic approach to well-being is often associated with research related to emotional well-being (Kahneman et. Al, 2003). In contrast, eudaimonic well-being consists of more than just happiness, it consists of the fulfillment of one's full potential and being true to self (Keyes, 2002, Ryan & Deci, 2001; 1998; Ryff, 1989; Waterman, 1993). Ryan and Deci (2001) further explain eudaimonic theories, as they postulate that not all desires or outcomes that one values, though pleasure producing, produce increased well-being or promote wellness. Watterman (1993) conceptualized eudaimonia as the congruence of life activities with one's values resulting in a holistically engaged person. Habitually, psychological well-being was defined as a lack of symptoms of distress, however the definition has since received a more involved explanation (Keyes & Magyar-Moe, 2003). Prior to Ryff's (1989) model of psychological well-being, definitions of psychological well-being had little to no theoretical rationale, lacked specific constructs, and lacked consistency of empirically tested scales. Ryff and colleagues (Ryff, 1989, Ryff & Essex, 1991; Ryff & Keyes, 1995) through examination of early psychologists such as Erikson, Jung, Neugarten, Allport, Maslow, Rogers, and Jahoda, identified six elements of functioning that are important for one to obtain self-actualization and become a better person. The six tenets comprise what is now referred to as *psychological well-being* (Ryff, 1989; Ryff & Keyes, 1995)

which are: self-acceptance, purpose in life, autonomy, positive relations with others, environmentally mastery, and personal growth. *Self-acceptance*, as defined by Ryff (1989), is whether or not a person has a positive attitude toward themselves or their life. Self-acceptance was viewed as an essential aspect of well-being because according to Ryff (1989) "holding positive attitudes towards oneself emerges as a central characteristic of positive psychological functioning" (p. 1071). Ryff defined *positive relations with others* as the ability to achieve warm, trusting, interpersonal relationships, which are central to overall psychological well-being (Ryff & Singer, 2008). The ability to resist social pressures to behave or think in a certain way is how Ryff (1989) defined *autonomy*, emphasizing such traits as independence, self-determination, and regulation of behavior (Ryff & Singer, 2008). *Environmental mastery* has been defined as active participation in, and mastery of one's environment. Ryff and Singer (2008) noted that this construct appeared to mimic other constructs that focused on control, but believed this construct differed, as its focus is on altering the context in which an individua lives to suit personal needs. *Purpose in life,* the fifth construct of Ryff's (1989) psychological well-being model, involves a person whose goals, intentions, and sense of direction all contribute to meaningfulness and integration of life. Ryff (1989) defined personal growth as an individual's continued development of potential, expansion, and adaptation to the outside world. Ryff and Singer (2008) believed this dimension came closest to Aristotle's meaning of "eudaimonia"— self-realization of the individual. Subjective well-being can be conceptualized as how individuals view their lives (Diener, Emmons, Larsen, & Griffen, 1985; Diener, Oishi, & Lucas, 2003; Diener, Sapyta, & Suh, 1998; Diener, Suh, Lucas, & Smith, 1999). Subjective well-being is a broad measure of well-being that incorporates mood and emotions into life satisfaction (Diener et. al, 1999). Subjective well-being

is an umbrella term that encompasses the ways in which people evaluate their lives, including life satisfaction, pleasant emotions, satisfaction with work and health, feelings of fulfillment and meaning, and low levels of unpleasant emotions (Diener, Oishi, & Lucas, 2003). Argyle and Martin (1991) claimed that various activities, including exercise, sports, reading, and music, tended to increase subjective well-being in general. Life satisfaction as a construct of subjective well-being represents a longer lasting trait like component or evaluation of one's life as a whole (Diener, 2006). Research suggests that satisfaction with life constitutes a large portion of a global evaluation of subjective well-being (Eid & Diener, 2004). Diener et al. (1985) suggest that life satisfaction represents a cognitive judgmental evaluation and is based upon a standard that each individual sets for his or her own life. Life satisfaction as defined by Shin and Johnson (1978) is the global assessment of quality of life based on what he or she determines to be significant. In general, life satisfaction is a broad, reflective appraisal of one's life (Diener, 2006). The underlying importance in these statements is that the evaluation of life satisfaction is personalized to each individual and is not determined by an external source (Diener et al., 1985). If an individual is successful and happy in the domains, they deem important, then satisfaction will be evident through their evaluation of their own life.

In addition to the importance placed on eudaimonic well-being (Ryan & Deci, 2001; Ryff, 1989; Ryff & Essex, 1991; Ryff & Keyes, 1995) Keyes (1998) identified a need to explore optimal social functioning as it relates to well-being using individuals social and societal connectedness. Keyes turned to the works of sociologists and psychologists such as Marx, Durkheim, Seeman, and Merton to develop the five-factor construct of social well-being (Keyes, 1998). The five factors that describe a person functioning optimally in society include *social coherence, social acceptance, social actualization, social contribution, and social integration.*

Combined these five factors indicate social well-being. Research consistently supports the stance that correlation does not equal causation, it is important to note that the presence of well-being does not result in the absence of mental illness (Renshaw & Cohen, 2014; Ryan & Deci, 2001). Further, Ryan and Deci (2001) echo fellow researchers stating that well-being is best understood as a multidimensional phenomenon comprised of both hedonic and eudaimonic aspects of well-being. A holistic wellness approach in counseling provides a framework for improving the quality of life and overall well-being and development of college students (Hermon & Hazler, 1999).

Well-being and Social Networking

Many researches have focused on understanding the impact of social media on users' well-being through measures of psychological well-being, attachment, life satisfaction or self-esteem (Vallor, 2012). Research focused on social networking sites has found that there is the potential for negative effects on one's interpersonal functioning (Clerkin, Smith, & Hames, 2013). Social networking sites add a virtual dimension to one's life through which individuals feel the need to be successful and obtain popularity (Utz, Tanis, & Vermuele, 2012). In a seminal study during the late nineties, internet use was depicted as having a negative effect on individuals' lives (Kraut et al., 1998). The researchers used longitudinal data from a field trial of internet use to examine the relationship between individual's internet use, social involvement, and psychological consequences of social involvement. The quantitative study tracked the internet use behavior of 169 participants over the first two years of internet use (Kraut et al., 1998). Path analysis was used to explore the relationship among demographic characteristics, social involvement, and psychological well-being, which were measured at three different time periods (pretest, internet usage, and posttest). The researchers found that greater use of the

internet was associated with statistically significant declines in social support (β= -0.13, p < 0.05) and increases in loneliness (β= -0.16, p < 0.02). Due to the limited quantitative studies focusing specifically on the relationship between student-athlete social networking use and well-being this study aims to fill the gap in the literature and provide quantitative results and implications for counselors and athletic personnel in order to improve student-athlete well-being.

Well-being and Athletic Identity

There is a noticeable gap in the literature related to the relationship between athletic identity and well-being. Only one quantitative research study was found that specifically explored the relationship between one's athletic identity and well-being. The study aimed to identify differences between elite athletes living in a Center for Elite Sport and Education (CTO) and those who were not living in a sport residence in terms of their levels of athletic identity and well-being in relation to their performance in sport. Verkooijen (2018) conducted a study of 123 Dutch athletes (61 athletes living at a CTO and 62 non-CTO athletes) between the ages of 16 and 30 years old in order to investigate the relationship between athletic identity and well-being. Athletic identity was measured using the Athletic Identity Measurement Scale (AIMS; Brewer & Cornelius, 2001) and well-being was measured using the abbreviated version of the World Health Organization Quality of Life instrument (WHOQOL-BREF). A multivariate analysis of covariance (MANCOVA) was performed to explore CTO residence differences in psychological well-being. There was a statistically significant difference for psychological well-being between those residing in a CTO residences and those who were non-CTO residents $F(4, 114) = 5.16$; $p = 0.01$; partial eta squared = 0.15, CTO resident athletes reported lower psychological well-being ($M = 3.18$, $SD = 0.52$) in comparison to not CTO-resident athletes ($M = 4.15$, $SD = 0.44$) (Verkooijen, 2018). Additionally, differences between participants in relation to athletic identity

was also explored using a MANCOVA. No significant effect was found, $F(1, 115) = 1.30$; p = 0.28; partial eta squared = 0.03 demonstrating no difference in athletic identity between CTO and non-CTO athletes.

Athletic Identity has been explored in a multitude of studies such as Athletic identity and its association to sport motivation (Baysden, Brewer, Petitpas, & Van Raalte, 1997; Martin, Mushett, & Eklund, 1994; Smith, Hale, & Collins, 1998; Ryska, 2002), level of commitment toward sport participation (Brewer & Cornelius, 2002; Horton & Mack, 2000), skill level (Brewer, Van Raalte, & Linder, 1991), gender ideologies (Brewer, Van Raalte, & Linder, 1991; Lantz & Schroeder, 1999; Royce, Gebelt, & Duff, 2003), identity foreclosure (Good, Brewer, Petitpas, Van Raalte, & Mahar, 1993; Murphy, Petitipas, & Brewer, 1996), injury and mood disturbance (Brewer, 1993), academic performance, career expectations, and withdrawal from sport (Green & Weinberg, 2001; Hill, Burch-Ragan, & Yates, 2002; Murphy, Petitpas, & Brewer, 1996; Wiechman & Williams, 1997; Ryska, 2003), sport performance drug usage, time and type of season (Brewer, Shelby, Linder, & Petitpas, 1999), identity salience (Horton & Mack, 2000), amount of dependency on sport (Hurst, Hale, Smith, & Collins, 2000; Smith, Hale, & Collins, 1998), level of anxiety linked to sport (Hurst et al., 2000; Martin 1999), and level of racial discrimination related to sport participation (Brown et al., 2003). However, little research has empirically explored the relationship between student-athlete well-being and athletic identity, as measured by the Athletic Identity Measurement Scale (AIMS). This research aims to fill the gap in the literature regarding student-athlete athletic identity and well-being by exploring Division I student-athlete well-being in relation to their athletic identity as measured by the AIMS.

Well-being and Student-Athletes

   Student-athlete well-being as defined in the NCAA Division I manual (2018) states that "intercollegiate athletics programs shall be conducted in a manner designed to protect and enhance the physical and educational well-being of student-athletes" (bylaw 2.2). In addition, the NCAA points to six principles of student-athlete well-being; "Overall Educational Experience; Cultural Diversity and Gender Equity; Health and Safety; Student-Athlete/Coach Relationship; Fairness, Openness, and Honesty; and Student-Athlete Involvement" (NCAA Manual, 2018, p.3).

2018 NCAA Bylaws 2.2 – Student-Athlete Well-being

2.2	The Principle of Student-Athlete Well-Being	Intercollegiate athletics programs shall be conducted in a manner designed to protect and enhance the physical and educational well-being of student-athletes.
2.2.1	Overall Educational Experience	It is the responsibility of each member institution to establish and maintain and environment in which a student-athlete's activities are conducted as an integral part of the student-athlete's educational experience.
2.2.2	Cultural Diversity and Gender Equity	It is the responsibility of each member institution to establish and maintain an environment that values cultural diversity and gender equity among its student-athletes and intercollegiate athletics department staff.
2.2.3	Health and Safety	It is the responsibility of each member institution to protect the health of, and provide a safe environment for, each of its participating student-athletes.
2.2.4	Student-Athlete/ Coach Relationship	It is the responsibility of each member institution to establish and maintain an environment that fosters a positive relationship between the student-athlete and coach.
2.2.5	Fairness, Openness and Honesty	It is the responsibility of each member institution to ensure that coaches and administrators exhibit fairness, openness and honesty in their relationships with student-athletes.
2.2.6	Student-Athlete Involvement	It is the responsibility of each member institution to involve student-athletes in matters that affect their lives.

   Athlete well-being is recognized as an important component of sports performance which encompasses all aspects of an athlete's life, including those that are not sport related (Dunn, 2014). Participation in intercollegiate athletics has been found to have both positive and negative

impacts on student-athlete mental health and well-being (Van Slingerland, Durand-Bush, & Rathwell, 2018; Stenling, Lindwall, & Hassmén, 2015). Over the life course of elite sports careers, athletes face multiple pressures; well-being is highlighted as a key determinant in enabling individuals to cope with daily stressors (World Health Organization, 2004).

According to (Bär & Markser, 2013) there is a common assumption that student-athletes are inherently mentally healthy. Typically, when a discussion occurs regarding college athletics and student-athletes, the conversation usually centers around physical injury and/or performance (Neal et al., 2015). However, over the years more attention is being focused on the mental health aspect of student-athletes' well-being (Beauchemin, 2014; Buchanan, 2012). Overall well-being refers to overall health and is an indicator of the overall functioning of student-athletes while considering holistic development and what student-athletes learn through their sport (Miller & Kerr, 2002). Scholars have considered psychological well-being (Marten-DiBartolo & Shaffer, 2002), emotional well-being (Ryska & Yin, 1999), and physical well-being (Seggar, Pedersen, Hawkes, & McGown, 1997) of student-athletes, but few have examined the overall well-being of student-athletes (Miller & Kerr, 2002; Settles, Sellers). Miller and Kerr (2002) proposed the *Athlete-Centered Model* to encourage athletic programs, coaches, parents, administrators, and support staff to view sport as a vehicle for contributing to the overall well-being (physical, psychological, and social) of student-athletes. In this type of sport system, athletes and associated adults work together toward the goals of sport (e.g., winning) and athletes' self-development goals that will aid in helping athletes become more self-reliant and develop lifelong skills. The premise of the *Athlete-Centered Model* is to allow these skills to be developed as a result of the sport experience. In this model, sport is viewed as developmentally appropriate and excellence in sport performance is pursued in light of the athlete's overall well-being (Miller & Kerr, 2002).

Although the benefits of this program have not been studied empirically, its basic tenets include a philosophy of treating student-athletes holistically.

Stressors have the potential to manifest as emotional, physical or developmental difficulties within the student-athlete subpopulation (Watson & Kissinger, 2007), and may negatively impact life satisfaction and well-being (DeFreese & Smith, 2014; Giacobbi, Lynn, & Wetherington, 2004; NCAA, 2014; Watson & Kissinger, 2007). Greater depth of research into athletes' well-being is warranted (Lundqvist, 2011). For that reason, this research study will evaluate the concept of well-being from the framework of Ryff's (1989) psychological well-being and quantitively explore the constructs using the Psychological Well-being scale (PWB) and the Satisfaction with Life Scale (SWLS; Diner, Emmons, Larsen, & Griffin, 1985) in order to explore the relationship between student-athlete social networking use and their well-being.

Significance of the Study

Student-athletes at Division I institutions, unlike a majority of their non-athlete peers, are easily identifiable figures on college campuses (Gaston-Gayles, 2003). The level of visibility can create different expectations about how student-athletes carry themselves, respond to adversity, and perform both physically and mentally. The 2015 NCAA GOALS study (Paskus & Bell, 2016) noted that college campuses have seen an increase in mental health issues, anxiety, and depression, and 30% of NCAA student-athletes reported having overwhelming distress in the last month, an increase of more than 5% since 2010. College student-athletes experience additional stressors that their non-athlete peers do not such as, balancing athletic and academic activities, isolation from athletic pursuits, balancing success or lack thereof, managing relationships, and the termination of one's career (Parham, 1993). The various challenges and stressors experienced by the student-athlete population can impact their well-being and can attribute to physical and

mental exhaustion (Beauchemin, 2014; Ferrante, Etzel, & Lantz, 1996). For athletes, greater psychological well-being is associated with lower negative emotional and physical states which aids in fostering athletic performance (Hardy et al., 1996).

In addition to common stressors faced by emerging adults, social networking sites have become an area of interest for researchers, due to the population's ability to adopt new technologies and engage in social networks (Lewis, Kaufman, & Christakis, 2008). Young adults ages 18-24 use social networking sites more frequently and in more places than any other age group (Bonds-Raacke & Raacke, 2011). Young (1996) found that anywhere from ten to fifty percent of college students report usage that could be classified as internet abuse, addiction, or problematic. The negative aspects of social networking may affect student-athletes and consequently impact perceptions of well-being, success, and performance.

The student-athlete population is receiving more attention in the areas of mental health and well-being, however there is still a large gap in the literature concerning issues pertinent to student-athletes, specifically how social networking impacts student-athlete well-being. This research will expand the emerging adulthood literature by exploring the relationships among emerging adult student-athlete social networking usage, student-athlete athletic identity, and various aspects of well-being to see if there is a connection between social networking use well-being. Research gained from this will inform counselors, athletic department personnel, and other professionals working with student-athletes about the relationships among emerging adult student-athlete social networking use, athletic identity, and well-being and provide implications for helping student-athletes navigate their own experience with social networking in a manner that promotes well-being.

Purpose of the Study

The purpose of this quantitative research study is to examine the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood. The study is being conducted to determine if there are relationships among student athlete's social networking use, emerging adulthood, athletic identity, and student-athletes' level of well-being (as determined by Ryff's (1989) Psychological Well-being scale and Satisfaction with Life (Diener et al. 1985). The independent variables include emerging adulthood, social networking use and athletic identity, while the dependent variable is well-being. Using the emerging adulthood framework, the findings will provide implications for counselors, athletic department personnel, and other professionals working with student-athletes to help understand how social networking use may impact student-athletes' well-being and provide practical implications for education and interventions to promote student-athlete well-being in relation to social networking.

Research Questions

Research has shown that there are connections between social networking use and well-being within the college student/emerging adult population; however, there is a lack of research explicitly examining how the sub-population of emerging adults, specifically student-athletes are impacted. Particularly, in relation to emerging adulthood there is a gap in the literature related to student-athlete social networking use, athletic identity, and well-being. The current study aims to expand research on social networking and well-being to include the emerging adult, student-athlete population in order to provide practical implications and interventions to promote emerging adult, student-athlete well-being during college. The specific research questions include:

1. To what degree do student-athletes endorse athletic identity and the five dimensions of emerging adulthood?

2. What are the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being?

3. Does student-athlete social networking use have an impact on well-being and/or athletic identity?

4. Are there significant differences in student athlete social networking use and well-being based on age, gender, or academic year?

5. Is there a relationship between student-athlete well-being and athletic identity?

Summary

This literature review explored the constructs regarding aspects of social networking use, emerging adulthood, athletic identity, and well-being as they relate to student-athletes. According to Hyatt (2003) student-athletes face several unique stressors that may impact performance and well-being. Additionally, Young (1996) found that social media has been found to contribute to additional stressors and create problematic use for college students. Additional research intended to explore the relationships among student-athletes' social networking use, athletic identity, and well-being is needed to identify relationships among student-athletes' social networking use, athletic identity, and well-being in order to inform those working with this population and provide practical implications and interventions to enhance student-athletes' overall well-being as well as improve the student-athlete experience during college.

Chapter II

Research Methodology

The purpose of this chapter is to describe the methodological approach and design used this study, including the participants, procedures, measures, and data analyses. The current study examined the relationships among student-athletes' social networking use, athletic identity, and well-being, as measured by psychological well-being (Ryff, 1989) and satisfaction with life (Diener et al., 1985) through the lens of emerging adulthood. In addition, the influence of age, gender, sport played, and years in sport were examined to determine if these factors contribute to the relationships among social networking use, athletic identity, and well-being.

Research Questions

1. To what degree do student-athletes endorse athletic identity and the five dimensions of emerging adulthood?

2. What are the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being?

3. Does student-athlete social networking use have an impact on well-being and/or athletic identity?

4. Are there significant differences in student athlete social networking use and well-being based on age, gender, or academic year?

5. Is there a relationship between student-athlete well-being and athletic identity?

Research Design

The current study was a quantitative correlational design that utilized cross-sectional survey methodology and included a number of survey instruments. Survey research provides an excellent way to examine people's attitudes and opinions (Tabachnick & Fidell, 2018). The focus of quantitative research is on gathering numerical data and then generalizing the data

across groups of people. Methods of a quantitative approach are statistical or numerical and may include questionnaires, surveys and polls (Babbie, 2010). The goal of survey research is to measure specific constructs within a sample of participants that represent a population of interest to the researcher (Visser, Krosnick & Lvarakas, 2000). The advantages of online surveys include access to unique populations, reduction in time, relative validity, cost efficiency, and ease of data collection (Wright, 2005). Furthermore, online questionnaires are considered to be an equally reliable and valid method of data collection, compared to pencil and paper surveys (Vallejo, Jordan, Diaz, Comeche, & Ortega, 2007; Wright, 2005) and provide additional practical benefits in terms of time and cost savings, and support selection of this method to measure the constructs of this study. In addition, survey research was used to gather demographic information, as well as data on the sport played, years played in sport, and athletic conference. Data was collected through self-report surveys via an online link through Qualtrics, specifically designed for research and data collection.

Participants

Participants for this study were recruited from a sample of current Division I student- athletes. In order to participate in this study, participants were emerging adults ages 18-25, currently enrolled as a student-athlete at a Division I institution, and active users of social networking sites. Participants of this study were recruited from a variety of sources including professional contacts throughout the country at various Division I institutions, social networking platforms, and university emails. The primary source of recruitment was Division I athletic departments. The researcher emailed the athletic directors at all Division I institutions to inform athletic directors of the current study and asked for permission to contact their student-athletes in order to invite them to participate in the study. Upon being granted permission the researcher contacted current Division I student-athletes via email which included an informational letter

which described the study and asked for their participation. In addition, participants were also recruited via snowball sampling by inviting participants to share this study with fellow student-athletes at other Division I institutions. According to the NCAA (2018) there are approximately 180,000 student-athletes competing on collegiate teams at 347 Division I institutions across 49 states. G*Power was used to estimate the necessary sample size. According to G*Power (Erdfelder, Faul, & Buchner, 1996) in order to obtain a medium effect size (.15), $\alpha = .05$, and power of 0.80, a sample size of 85 participants was needed.

Descriptive statistics of the demographics of this sample can be viewed in **Table 1**. The initial participant pool included 118 Division I student-athletes who began the survey. Due to selection criteria 10 cases were omitted as they were not a Division I student-athlete or not active users of social networking sites. In addition, 13 cases were eliminated for missing more than 10% of data. Thus, the final sample was composed of 95 student-athletes who met the eligibility criteria to participate in the study: (a) competing at a Division I institution, (b) active uses of social networking sites, and (c) between the ages of 18 – 25.

A total of 95 Division I student-athletes participated in the current study, of those 42 (44.7%) participants identified as male, 53 (55.8%) participants identified as female. Participants ages ranged from 18 to 25 and had a mean age of 19.92 (SD = 1.33). In terms of race and ethnicity, 20 (21.1%) identified as Hispanic or Latino or of Spanish Origin, and 75 (78.9%) identified as Not Hispanic or Latino or of Spanish Origin; further, 27 (28.4%) participants identified as Black or African American, 1 (1.1%) identified as Native Hawaiian or Other Pacific Islander, and 62 (65.3%) identified as White

Procedures

Following approval from the Auburn University Institutional Review Board (IRB) participants were recruited to participate in this study via email requests to athletic director. Once

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permission was obtained from the athletic director, the researcher sent a recruitment email, which included the survey link and informational letter, to student-athletes' university email address. A copy of the recruitment emails can be found in Appendix A. Additionally, online social networking sites such as Facebook, Instagram, Snapchat, Twitter, and LinkedIn were utilized to recruit participants. Finally, participants were recruited via snowball sampling by inviting participants to share the survey link with fellow student-athletes at other Division I institutions. Participants accessed the study via a Qualtrics link and were able to take the survey anonymously at their convenience.

Once participants chose to participate in the study by selecting the survey link, they were presented with the parameters of the study via an informational letter which included IRB approval information, length of survey, and inclusion criteria. Additionally, information about the purpose of the study, contact information for the researcher and faculty advisor, contact information for Auburn's IRB as well as a link to the survey itself was included in the informational letter. Finally, a consent statement was provided informing participants that participation was voluntary, and their responses would be anonymous and confidential. A copy of the informational letter can be found in Appendix B. Incentives included a raffle of six $50 Visa gift cards. At the end of the survey, participants who wished to enter the drawing were directed to a separate survey to enter their email address to be included in the raffle. All personal information was kept separate so that no identifying information could be linked back to the data.

The survey was administered using Qualtrics software. The survey consisted of four parts. The first part was the informational letter that included a statement of informed consent, which in this case was passive consent (i.e., participants agreed that they had been fully informed of the parameters, benefits, and ethics of participating in the study and that hey consented to participate in the study by clicking the survey link). The second part included the demographic

questionnaire which can be found in Appendix C. The third part of the survey included the five instruments used in this study: the Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri, Wright, & Johnson, 2013), the Athletic Identity Measurement Scale (AIMS; Brewer, Van Raatle, & Linder, 1993), the Scale of Psychological Well-being (Ryff, 1989), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and the Inventory of the Dimensions of Emerging Adulthood (Reifman, Arnett, & Colwell, 2007). The instruments are included in Appendix D, E, F, G and H respectively. De-identified data were collected and stored in Qualtrics, which was then exported and analyzed using IBM SPSS Statistics software (version 26). Lastly, the fourth part of the survey was a link that directed participants to another survey where they entered their email address to register for the incentive drawing. Email addresses were collected in this manner so that there would be no link between the survey data and the entry for the drawing. Two drawings were held, at each drawing three winners were selected. Once the data were collected and the drawings were held, the names and e-mail addresses were destroyed.

Instrumentation

In addition to a demographic questionnaire, a number of instruments were utilized to acquire data on the variables of this study. Five surveys were utilized to obtain data for the study: The Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri et al., 2013), the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993), the Scale of Psychological Well-being (PWB, Ryff, 1989), and the Satisfaction With Life Scale (SWLS, Diener et al., 1985) and the Inventory of the Dimensions of Emerging Adulthood (IDEA, Reifman et al., 2007). The instruments were provided via Qualtrics to current Division I student-athletes. These data have been used to describe the sample and conduct the main analyses.

Demographic Measure

Demographic information was gathered by a brief questionnaire (see Appendix X). Items on the Demographic Questionnaire were related to age, gender, year in school, sport played, number of years played in sport, and social networking site usage information. These demographics have provided the necessary information to describe the sample of student-athletes and deliver data for the predictors – age, gender and years of sport played. Descriptive and frequency analyses were used to examine participant characteristics.

Social Media Use Integration Scale

The Social Media Use Integration Scale (SMUIS) (Jenkins-Guarnieri et al., 2013) was developed to measure the nature of one's social media usage. "The SMUIS was designed to assess engaged use of a variety of social media in emerging adult populations" (Jenkins-Guarnieri et al., 201, p. 47). There are two subscales in this measure. The first is a 6-item subscale called Social Integration and Emotional Connection (SIEC) which considers the degree to which social media use is a habit. Some examples of items from this subscale include, "I feel disconnected from friends when I have not logged into social media;" "I get upset when I can't login to social media;" and "I prefer to communicate with others mainly through social media." The second is a 4-item subscale called Integration into Social Routines (ISR), which assesses one's preference for communicating via social media. Some item examples from this subscale include, "I enjoy checking my social media account," and "Using social media is part of my everyday routine." The scale has 10 items total, each rated 1- 6. Each item is rated by the participants on a 6-point scale (1 = Strongly Disagree, 2 = Disagree, 3 = Disagree Somewhat, 4 = Agree Somewhat, 5 = Agree, 6 = Strongly Agree). In order to obtain an overall score for this measure, one calculates the average of the ratings for the items comprising each subscale, and then an average of the subscale scores is obtained to arrive at the overall score for the instrument. Higher scores indicate user's preference and habitual use of social networking sites. The SMUIS

was originally developed to measure Facebook use; however, it was purposefully designed to be

adapted to measure other forms of online social media use (Jenkins-Guarnieri et al., 2013).

Jenkins-Guarnieri et al. (2013) psychometrically evaluated the scale within a study of two

separate, equal sized subsamples using a single survey of 616 first-year students at a Rocky

Mountain Region University to determine validity and reliability of the SMUIS scale. The

subsamples consisted of predominantly females (70%, and 72% respectively) with the mean ages

being 18. According to Jenkins-Guarnieri et al. (2013) strong reliability was found for data

collected with the total scale demonstrating excellent internal consistency ($\alpha = .91$). The first 6-

item subscale called SIEC measures the degree to which social media use is a habit, showed very

good internal consistency ($\alpha = .89$), and the second 4-item subscale ISR measuring one's

preference for communicating via social media showed good internal consistency ($\alpha = .83$).

Jenkins-Guarnieri et al. (2013) established convergent validity between the SMUIS and the

Facebook Use Intensity Scale (Ellion, Steinfield, & Lampe, 2007), both subscales and total mean

scores demonstrated significant ($p < .001$) relationships ($\alpha = .893$ for the SIEC subscale $\alpha = .893$,

$\alpha = .828$ for the ISR subscale, and $\alpha = .914$ for the SMUIS total scale) with good internal

consistency ($\alpha = .852$). Test–retest over a 3-week period suggested that SMUIS responses

remained stable, with reliability correlations of $r = .80$ for the total scale, $r = .80$ for subscale

SIEC, and $r = .68$ for subscale ISR. Exploratory factor analyses (EFA) and confirmatory factor

analyses (CFA) (using the model generating approach to structural equation modelling (SEM)

were conducted to evaluate the fit of the observed indicators selected by the EFA, to the data on

the same scale items from the separate hold-out sample) (Jenkins-Guarnieri et al., 2013). The

resultant ten-item model indicated satisfactory fit with the data: RMSEA=.075; CFI=.96;

NNFI=.95 (Jenkins-Guarnieri et al., 2013, p. 45).

The SMUIS has been used in other cultures and was adapted into Turkish by Akin,

Ozbay, and Baykut (2015), the scale consists of two sub-dimensions and 10 items. Whether or not the original two-dimensional structure of the scale would be confirmed in the Turkish culture was examined by Akin et al. (2015) through Confirmatory Factor Analysis. The CFA indicated that the SMUS had a good fit to the Turkish culture ($\chi2 = 74.92$, sd= 31, $\chi2$ /sd= 2.42, RMSEA= .076, NFI= .93, NNFI= .94, CFI= .96, IFI= .96, GFI= .94, SRMR= .049). The Cronbach alpha internal consistency reliability coefficients were .87 for the SIEC sub-scale .71 for ISR sub-scale, and .87 for the whole scale. One item of the scale was reverse scored. High scores obtained from the scale's sub-dimensions and from the whole scale indicate a high level of social media usage (Akin et al., 2015).

The Athletic Identity Measurement Scale

The Athletic Identity Measurement Scale (AIMS) (Brewer et al., 1993) is a standardized, psychometrically sound measure that can facilitate the testing of Athletic Identity (AI). The AIMS is a measurement tool used to reflect both the strength and the exclusivity of identification within the athletic role. Since the early development of the AIMS, researchers have been examining its validity to improve the measurement tool (Brewer & Cornelius, 2001; Hale et al., 1999; Martin, Eklund, & Mushett, 1997). The AIMS was originally written as an 11-item Likert-Type scale instrument, but preliminary analysis of the items led to one of the questions being removed from the instrument, as it showed little variance across respondents (Brewer et al., 1993). Brewer et al. (1993) suggested a 3-factor model: (a) social identity, representing the extent to which the individual views him/herself as occupying the athlete role; (b) exclusivity, representing the extent to which an individual's self-worth is determined only by performance in the corresponding athlete role; and (c) negative affectivity, representing the extent to which an individual experiences negative affect in response to undesirable outcomes in athletic domains (Brewer & Cornelius, 2001; Hale et al., 1999). Successive trials with the AIMS have led to the evolution of the scale to 10 item and 7 item versions. This research study utilized the 10-item version of the AIMS. The 10 items encompass social, cognitive, and affective elements of

athletic identity. Each item is rated by the participants on a 7-point scale (1 = Strongly Agree, 2 = Agree, 3 = Agree Somewhat, 4 = Neither Agree nor Disagree, 5 = Disagree Somewhat, 6 = Disagree, 7 = Disagree Strongly). The items evaluate the thoughts and feelings from athletes' daily experiences. The higher the score the stronger the respondent identifies with the athlete role.

To test the reliability of the AIMS, Brewer et al. (1993) administered the AIMS in three separate studies. Participants in the first study were undergraduates, 124 female and 119 male, enrolled in an introductory sport psychology class, subjects in the second study were undergraduates enrolled in an introductory psychology class, and the third sample included subjects from the University football team. Brewer et al. (1993) administered the AIMS for the three samples on separate occasions and found alpha coefficients of .93, .87, and .81, respectively. Since the results indicated alpha coefficients above .80 for these three studies exhibited a test-retest reliability of .82, the authors concluded that the AIMS is a reliable, internally consistent instrument for use with athletes.

In previous research studies the convergent validity of AIMS was demonstrated through moderate correlations with the Self-Role Scale (SRS; Curry & Weiss, 1989; r = .61), and the three subscales of the Sport Orientation Questionnaire (SOQ; Gill & Deeter, 1988; r = .26 to .53). Brewer, Van Raalte, and Linder (1993) suggested that the correlation between the AIMS and Self-Role Scale was moderate, but not sufficiently strong to state that they are measuring the same construct. For discriminant validity evidence, the AIMS was found not to correlate with all five subscales of the Physical Self-Perception Profile (PSPP; Fox & Corbin, 1989; r = -.03 to .19). Moreover, among the four subscales of the Perceived Importance Profile (PIP; Brewer, Van Raalte, & Linder, 1993) only the PIP-sport subscale (r = .42), but not the PIP-fitness (r = .06),

body (r = .22), and strength subscales (r = .15), was significantly correlated with the AIMS when controlling for the level of athletic involvement. The authors concluded that AI is different from physical self-esteem, perceived importance of fitness, body attractiveness, and strength.

Although Brewer, Van Raalte, and Linder (1993) initially conceptualized and developed the AIMS to be unidimensional, factor analyses in subsequent studies revealed three dimensions

which include: (a) social identity, representing the extent to which the individual views him/herself as occupying the athlete role; (b) exclusivity, representing the extent to which an individual's self-worth is determined only by performance in the corresponding athlete role; and (c) negative affectivity, representing the extent to which an individual experiences negative affect in response to undesirable outcomes in athletic domains (Brewer & Cornelius, 2001; Hale et al., 1999). In conclusion, the aforementioned tests of validity and reliability conducted by Brewer et al. (1993) demonstrated that the AIMS is a valid and reliable test. This research study is using the definition of athletic identity, and therefore the instrument that was established by Brewer et al. (1993).

The Psychological Well-being Scale

The scale for PWB (Ryff, 1989) was chosen based on its applicable features designed to measure the predictor variable, psychological well-being. This questionnaire is designed to measure PWB among the six dimensions outlined previously: Autonomy, Environmental Mastery, Personal Growth, Positive Relations With Others, Purpose in Life, and Self-Acceptance. The original structure of the assessment included 20 items for each of six dimensions, resulting in a 120-item scale. Estimates of each scale's internal consistency for a sample of community volunteers were as follows: Self-Acceptance, .93; Positive Relations With Others, .91; Autonomy, .86; Environmental Mastery, .90; Purpose in Life, .90; and Personal Growth, .87 (Ryff, 1989). In addition, the following estimates of test retest reliability were acquired for a 117-person sample over a 6-week interval: Self-Acceptance, .85; Positive Relations With Others, .83; Autonomy, .88; Environmental Mastery, .81; Purpose in Life, .82; and Personal Growth, .81 (Ryff, 1989).

Given concerns about the length of administration, a variety of shorter versions has been subsequently developed and distributed by the original author, including surveys containing 12, 18, 42, 54, and 84 items, with a range of 2 to 14 items per dimension. Most recently, significant explorations and discussions have centered upon the 42-item version of the scale (Abbott et al., 2006; Abbott, Ploubidis, Huppert, Kuh, & Croudace, 2010; Springer & Hauser, 2006). The items in the 42-item questionnaire are divided equally among positive items and negative items.

Responses are scored on a 6-point Likert-Type scale (1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = slightly agree, 5 = moderately agree, 6 = strongly agree). In scoring the PWB, 21 items are reverse-coded and then all 42 responses are summed, separate subscale scores are calculated by summing all items within each subscale. Higher scores on the 42-item PWB scale indicative greater well-being.

Subscale	High Scorer	Low Scorer
Autonomy	Is self-determining and independent; able to resist social pressures to think and act in certain ways; regulates behavior from within; evaluates self by personal standards.	Is concerned about the expectations and important decisions; conforms to social pressures to think and act based on evaluations of others; relies on judgments of others.
Environmental Mastery	Has a sense of mastery and competence in managing the environment; controls complex array of external activities; makes effective use of surrounding opportunities; able to choose or create contexts suitable to personal needs and values.	Has difficulty managing everyday affairs; feels unable to change or improve surrounding context; is unaware of surrounding opportunities; lacks sense of control over external world.
Personal Growth	Has a feeling of continued development; sees self as growing and expanding; is open to new experiences; has sense of realizing one's potential; sees improvement in self and behavior over time; is changing in ways that reflect more self-knowledge and effectiveness.	Has a sense of personal stagnation; lacks sense of improvement or expansion over time; feels bored and uninterested with life; feels unable to develop new attitudes or behaviors.
Positive Relations with Others	Has warm satisfying, trusting relationships with others; is concerned about the welfare of others; capable of strong empathy, affection, and intimacy; understands give and take of human relationships.	Has few close, trusting relationships with others; finds it difficult to be warm, open, and concerned about others; is isolated and frustrated in interpersonal relationships; not willing to make compromises to sustain important ties with others.

Purpose in Life	Has goals in life and a sense of directedness; feels there is meaning to present and past life; holds beliefs that give life purpose; has aims and objectives for living.	Lacks a sense of meaning in life; has few goals of aims, lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning.
Self-Acceptance	Possesses a positive attitude toward the self; acknowledges and accepts multiple aspects of self, including good and bad qualities; feels positive about past life.	Feels dissatisfied with self; is disappointed with what has occurred in past life; is troubled about certain personal qualities; wishes to be different than what one is.

Sample items for each dimension are as follows: I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people (Autonomy); I am good at juggling my time so that I can fit everything that needs to be done (Environmental Mastery); When I think about it, I have not really improved much as a person since I was younger (Personal Growth); I often feel lonely because I have few close friends with whom I share my concerns (Positive Relations With Others); I enjoy making plans for the future and working to make them a reality (Purpose in Life); When I look at my life so far, I am pleased with how things have turned out (Self-Acceptance).

In response to questions regarding the factor structure of the 42-item PWB raised by Springer and Hauser (2006), Ryff and Singer (1998) suggested that factor analyses performed on this version support the theory-driven six-factor model originally proposed by Ryff (1989). Ryff gave her "personal recommendation" on the use of the 42-item SPWB (Abbott et al., 2010, p. 359). Therefore, the 42-item version will be used in this study as it appears sufficiently robust to cover the six dimensions adequately, while allowing for more convenient administration when compared to the full 120-item version. The PWB has demonstrated sound psychometric properties across a variety of middle-aged adult populations (Ryff & Singer, 1998), across cultural and lingual contexts (Akin-Little & Little, 2008; Ma et al., 2012), and with college student populations (Bowman, 2010; Burns & Machin, 2009; Chang, 2006; September et al.,

2001). In the version utilized in this study, there are seven items per dimension. When administered to a college-aged population, Cronbach's alphas for the 42-item version of this measure have been found to range from .77 to .86 (Bowman, 2010).

The Satisfaction With Life Scale

The Satisfaction With Life Scale (SWLS; Diener et al., 1985) focuses on the life satisfaction component of subjective well-being and is used to measure global cognitive judgements of one's satisfaction with life. It includes five statements developed based on individuals' judgement of life in comparison to standards. Statements include "The conditions of my life are excellent" and "So far, I have gotten the important things I want in life." Responses are scored on a 7-point Likert-Type scale (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neither agree nor disagree, 5 = slightly agree, 6 = agree, 7 = strongly agree) and has been shown to have strong internal consistency and stability. According to (Diener et al., 1985) scoring is conducted by summing the responses with a possible range of scores of 5 – 35. The higher the score the more satisfied with life one is with score of 30 – 35 indicating a very high score and highly satisfied, 25 – 29 high score, 20 – 24 average score, 15 – 10 slightly below average in life satisfaction, 10 – 14 dissatisfied, and 5 – 9 extremely dissatisfied.

In a study of 176 undergraduates, reliability was supported with a coefficient alpha of .87 and a two-month test-retest correlation of .82 (Diener et al., 1985). Convergent validity was supported when Diener et al. (1985) found the SWLS to be highly correlated with other measures of life satisfaction, such as the Fordyce Global Scale (Fordyce, 1978) (r = .58), a measure of happiness, the D-T scale (Andrews & Withey, 1976) (.68), a single-item measure of happiness, and the Neuroticism scale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1964) (r = .57). In addition, discriminant validity was supported by Blais, Vallerand, Pelletier, and Briere (1989), who found the SWLS to be negatively correlated with the Beck Depression Inventory (r = - .72).

The Inventory of the Dimensions of Emerging Adulthood

The Inventory of the Dimensions of Emerging Adulthood (IDEA) (Reifman, Arnett &

Colwell, 2007) is a 31- item measure with six subscales corresponding to the most prominent features of emerging adulthood: identity exploration, exploration of possibilities, negativity or instability, other-focused, self-focused, and feeling "in-between" (Reifman, Arnett & Colwell, 2007). Each subscale represents the degree to which individuals identify with each theme that is characteristic to emerging adulthood. Higher scores on the IDEA sub-scales represent individuals who presently endorse the characteristics of emerging adulthood. Examples include, "is this period of your life a time of many possibilities?" and "is this period of your life a time of separating from parents?" Responses are rated on a 1-4 scale, with possible answers ranging from "strongly disagree" to "strongly agree." The measure is comprised of the following six subscales: identity exploration, experimentation/possibilities, negativity/instability, other-focused, self-focused, and feeling "in-between." Each scale consists of 3-7 items and is formed by the average of scores on those items (Reifman et al., 2007).

According to Reifman et al. (2007) the IDEA was found to have internal consistency reliability of .85 on the identity exploration subscale, .83 on the experimentation/possibilities subscale, .82 on the negativity subscale, .73 on the other-focused subscale, .70 on the self-focused subscale, and .80 on the feeling 'in-between' subscale. Test-retest reliability over a one-month interval was found to be sufficient on all scales ranging from .64 - .76, except the feeling "in-between" subscale, which had a test-retest reliability of .37 (Reifman, Arnett, & Colwell, 2007). While the authors did not specifically address the score for the feeling "in-between" subscale, emerging adulthood is a construct that changes over time, due to the feeling "in-between" subscale having only three items test-retest may not be appropriate for this scale (Reifman, Arnett, & Colwell, 2007). Convergent and discriminant validity were examined by looking at the correlations between each subscale and other constructs. Convergent validity was found that those who are high on negativity are generally low in life satisfaction (r = -.38) and in

feelings of environmental mastery ($r = -.35$). Identity exploration was correlated with higher

hopes for the self ($r = .34$) and perceived career opportunities ($r = .25$). Lastly, the identity

exploration, experimentation/possibilities, other-focused, and self-focused subscales are each

correlated with future orientation (identity exploration $r = .20$, experimentation/possibilities $r =$

$.22$, other-focused $r = .29$, and self-focused $r = .23$) (Reifman et al., 2007).

Statistical Analysis

These data were cleaned and screened for violations of assumptions (normality, linearity,

and homoscedasticity) before running the main analyses (Tabachnick & Fidell, 2018). Initially,

descriptive and frequency analyses were conducted to determine the basic demographics of the

sample and specific information related to participant's athletic conference, academic year, sport

played, years in sport, and social networking use.

Mean, standard deviations, and ranges were calculated for the variables of interest. The

distribution of scores around the mean was analyzed with tests of skewedness and kurtosis and

all assumptions for normality were met. Descriptive statistics, correlations, analysis of variance

(ANOVA), and regression analyses were utilized for the current study. Findings are organized

and displayed in charts and graphs.

Limitations

There are several limitations to the proposed study. First, due to the non-experimental

design of the study there are threats to internal validity, which include the lack of experimental

control and the inability to manipulate the independent variable. Secondly, all of the instruments

are self-report which may impact the validity of a survey, as it may lead to participants selecting

responses to depict a favorable image of themselves known as socially desirable responding

(Johnson & Fendrich, 2005; va de Mortel, 2008). Lastly, due to the small/unique sample

available for the study, results may not be generalizable beyond the specific population from

which the sample was drawn.

Summary

This chapter has covered the methodology and procedures that were utilized to examine the relationships among student-athletes' social networking use, athletic identity and well-being through the lens of emerging adulthood. In order to answer the proposed research questions, data were collected using a demographic questionnaire, The Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri et al., 2013), the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993), the scale of Psychological Well-being (PWB; Ryff, 1989), and the Satisfaction With Life Scale (SWLS; Diener et al., 1985) and the Inventory of the Dimensions of Emerging Adulthood (IDEA; Reifman, et al., 2007). Demographics and identity information were also collected to accurately describe the sample. The main analyses used in the study were correlation, regression, and ANOVA.

Chapter III

Results

This chapter highlights the findings of the data analyses for this study. It also includes a review of the research questions and findings of the main analyses. Data were analyzed using IBM SPSS (v26). The present study sought to explore the relationships among student-athletes' social networking use, athletic identity, and well-being through the lens of emerging adulthood.

Descriptive Analyses

In chapter II, frequencies and descriptive statistics were provided on the demographic data collected from this sample. As reported in **Table 1**, the sample consisted of 95 participants who self-identified as between age 18 -25, Division I student-athletes, and active users of social networking sites. A total of 95 Division I student-athletes participated in the current study, of those 42 (44.7%) participants indicated they identified as male, 53 (55.8%) participants indicated they identified as female. Participants ages ranged from 18 to 25 and had a mean age of 19.92 (SD = 1.33). In terms of race and ethnicity, 20 (21.1%) identified as Hispanic or Latino or of Spanish Origin, and 75(78.9%) identified as Not Hispanic or Latino or of Spanish Origin; further, 27 (28.4%) participants identified as Black or African American, 1 (1.1%) identified as Native Hawaiian or Other Pacific Islander, 62 (65.3%) identified as White, and 5 (5.3%) identified as Other.

Table 1

Demographic Characteristics of Study Population

Characteristic	Frequency	Percent
Gender		
Male	42	44.2
Female	53	55.8
Ethnicity		
Hispanic or Latino or Spanish Origin	20	21.1
Not Hispanic or Latino or Spanish Origin	75	78.9
Race		
Black or African American	27	28.4
Native Hawaiian or Other Pacific Islander	1	1.1
White	62	65.3
Other	5	5.3
Age		
18	12	12.6
19	29	30.5
20	23	24.2
21	22	23.2
22	6	6.3
23	2	2.1
25	1	1.1

In relation to academic year or standing 14 (14.7%) participants identified as Freshman, 37 (38.9%) identified as Sophomores, 22 (23.2%) identified as Juniors, 16 (16.8%) identified as Seniors, 4 (4.2%) identified as 5th years, and 2 (2.1%) identified as a Graduate Student. Sixteen Division I sports were represented in this study, 10 (10.5%) baseball, 6 (6.3%) men's basketball, 1 (1.1%) women's basketball, 1 (1.1%) cross country, 11 (11.6%) equestrian, 19 (20%) football, 2 (2.1%) gymnastics, 14 (14.7%) women's soccer, 5 (5.3%) softball, 1 (1.1%) men's swimming and diving, 8 (8.4) women's swimming and diving, 2 (2.1%) men's tennis, 1 (1.1%) women's tennis, 3 (3.2%) men's track and field, and 1 (1.1%) women's track and field. Additionally, eight athletic conferences were represented in the sample, with the majority of participants competing in the Sun Belt Conference (29.5%) and the Southeastern Conference (63.2%). Participants were also asked to indicate the number of total years they have been competing in sport, responses ranged from 2 to 18 with a mean number of years of 12.13 (SD = 2.76).

Table 2

Demographic Characteristics of Study Population – Athletics

Characteristic	Frequency	Percent
Academic Year		
Freshman	14	14.7
Sophomore	37	38.9
Junior	22	23.2
Senior	16	16.8
5th Year	4	4.2
Graduate Student	2	2.1
Athletic Conference		
Atlantic Coast Conference (ACC)	1	1.1
Big 12 Conference	1	1.1
Conference USA (C-USA)	1	1.1
Mid-American Conference (MAC)	1	1.1
Ohio Valley Conference (OVC)	1	1.1
Southern Conference (SoCon)	2	2.1
Southeastern Conference (SEC)	60	30.5
Sun Belt Conference	28	63.2
Sport		
Baseball Basketball (M)		

10	10.5	
6	6.3	
Basketball (W)	1	1.1
Cross Country (M)	1	1.1
Equestrian (W)	11	11.6
Football	19	20.0
Gymnastics	2	2.1
Soccer (W)	14	14.7
Softball	5	5.3
Swimming and Diving (M)	1	1.1
Swimming and Diving (W)	8	8.4
Tennis (M)	2	2.1
Tennis (W)	1	1.1
Track and Field (M)	3	3.2
Track and Field (W)	1	1.1
Volleyball (W)	10	10.5

Participants were asked to provide information related to their social networking use. All of the 95 participants indicated that they were active users of social networking sites, 95 (96.8%) of respondents indicated that they used social networking sites 5 to 7 days per week, 2 (2.1%) participants indicated use of 3 – 5 days per week, and 1 (1.1%) participant indicated use of 1 – 3 days per week. Additionally, participants were asked how many times per day they accessed social networking sites, 2 (2.1%) indicated less than 5 times per day, 25 (26.3%) indicated 6 – 10 times per day, 28 (29.5%) indicated 10 – 15 times per day, 26 (27.4%) indicated 16 -20 times per day, and 14 (14.7) participants indicated accessing their social networking sites more than 20 times per day. In relation to social networking sites used, 49 (12%) used Facebook, 86 (21.9%)

reported having a Twitter account, 50 (12.7%) had a LinkedIn account, 28 (7.1%) used Pinterest, 86 (21.9%) reported having an Instagram account, and 94 (23.9%) used Snapchat. When asked about reasons for social networking use, 89 (31.2%) participants indicated that they used social networking sites to connect with friends and family, 13 (4.6%) to interact with fans, 77 (27%) to gain information about what is going on in the world, 94 (33%) indicated that social networking site use was for entertainment, and 12 (4.2%) chose other reason.

In relation to social networking use, participants were asked to respond to items related to positive and negative content directed towards them as a student-athlete on social networking sites. Most of the participants, 91 (95.8%) reported experiencing positive content directed at them as a student-athlete, further 24 (25.3%) rated the content as minimally positive, 23 (24.2%) rated it as somewhat positive, and 45 (47.4%) rated it as positive. Conversely, 64 (67.4%) of participants reported experiencing negative content directed towards them as a student-athlete on social networking sites, 10 (10.5%) rated the content as minimally negative, 8 (8.4%) rated it as somewhat negative, 12 (12.6%) rated it as negative, 23 (24.2%) rated it as moderately negative, and 15 (15.8%) rated it as extremely negative. Participants who experienced negative content directed at them as student-athletes were asked to share how they responded to the content and were able to select multiple choices, 52 (48%) reported no response, 11 (10.2%) indicated direct response to the individual, 19 (17.6%) indicated posting subliminal messages on their own social networking sites, 23 (21.3%) talked to others about the negative content, and 3 (2.8%) reported the negative content to an authority figure.

Table 3

Demographic Characteristics of Study Population – Social Networking Use

Characteristic	Frequency	Percent	Percent of Cases
Social Networking Use – Days Per Week			
1 – 3 days per week	1	1.1	
3 – 5 days per week	2	2.1	
5 – 7 days per week	92	96.8	
Social Networking Use – Times Per Day			
Less than 5 times per day	2	2.1	
6 – 10 times per day	25	26.3	
10 – 15 times per day	28	29.5	
16 – 20 times per day	26	27.4	
More than 20 times per day	14	14.7	
Social Networking Sites Used			
Facebook	49	12.5	51.6
Twitter	86	21.9	90.5
LinkedIn	50	12.7	52.6
Pinterest	28	7.1	29.5
Instagram	86	21.9	90.5
Snapchat	94	23.9	98.9
Reason for Social Networking Site Use			
To connect with friends/family	89	31.2	93.7
To interact with fans	13	4.6	13.7
To gain information about the world	77	27	81.1
For entertainment	94	33	98.9

Other	12	4.2	12.6

Positive Experience on Social Networking Site

Yes	91	95.8
No	4	4.2

Intensity of Positive Experience

Minimally Positive	24	25.3
Somewhat Positive	23	24.2
Positive	45	47.4

Negative Experience on Social Networking Site

Yes	64	67.4
No	31	32.6

Intensity of Negative Experience

Minimally Negative	10	10.5
Somewhat Negative	8	8.4
Negative	12	12.6
Moderately Negative	23	24.2
Extremely Negative	15	15.8

Response to Negative Experience

No Response	52	48.1	78.8
Direct Response to Individual	11	10.2	16.7
Post Subliminal Messages	19	17.6	28.8
Talked to Others	23	21.3	34.8
Reported to an Authority Figure	3	2.8	4.5

Preliminary Analyses

Preliminary analyses of these data also included an examination of assumptions. Based on the moment coefficient of skewness and kurtosis, most of these data met the standards for statistical assumptions. Ranges between -2.00 and 2.00 for skewness and ranges of -3.00 and 3.00 for kurtosis demonstrate that these data approximated a normal distribution (DeCarlo, 1997; Tabchnick & Fidell, 2013). However, one subscale, the social identity (SI) subscale from the AIMS measure demonstrated some kurtosis (kurtosis = 3.38). For the purpose of this study however, the overall score of the AIMS was used, which met the assumption for kurtosis.

Subscale means, standard deviations, and Cronbach's alphas (see **Table 4**) as well as intercorrelations (see **Table 5**) were explored for the main scales, the SMUIS, AIMS, PWB, SWLS, and the IDEA, Cronbach's alphas for most of the scales ranged from .71 to .91, well within acceptable limits (.70 to 1.00). One IDEA subscale, Experimentation/Possibilities had an alpha coefficient of .63. The purpose in life subscale of PWB had a Cronbach's alpha coefficient of .67, and environmental mastery had an alpha coefficient of .48. Due to the low alpha coefficient of the environmental mastery subscale of PWB it was not used in further analyses.

Table 4

Scale Reliability Statistics

Scale	N	Mean	SD	Cronbach's Alpha
AIMS	10	55.0	9.80	.889
SMUIS	10	2.17	0.544	.846
SWLS	5	13.46	4.16	.810
PWB (Total)	42	117.03	26.85	.906
PWB (Autonomy)	7	24.24	10.2	.907
PWB (Environmental Mastery)	7	22.84	4.71	.483
PWB (Personal Growth)	7	15.14	5.24	.745
PWB (Positive Relations with others)	7	17.33	7.11	.853
PWB (Purpose in Life)	7	18.17	5.35	.672
PWB (Self-acceptance)	7	19.32	5.43	.711
IDEA (Total)	31	3.33	0.263	.830
IDEA (Experimentation/Possibilities)	5	3.40	0.364	.629
IDEA (Self-focused)	6	3.42	0.361	.714
IDEA (Identity Exploration)	7	3.32	0.362	.735
IDEA (Feeling in-between)	3	3.34	0.461	.798
IDEA (Negativity/Instability)	7	3.17	0.407	.774

AIMS – Athletic Identity Measurement Scale; SMUIS – Social Media Use and Integration Scale; SWLS – Satisfaction with Life Scale; PWB – Psychological Well-being; IDEA – Inventory of the Dimensions of Emerging adulthood.

Analyses were conducted with the demographic variables and main study variables to determine if the demographic variables of age, gender, and sport were related to social networking use, athletic identity, emerging adulthood, or well-being. Pearson's *r* was used to examine correlations for continuous variables, analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA) was used to examine group differences. A p-value of .01 was used to determine significance in order to reduce the threat of Type I error.

Research Question One: To what degree do student-athletes endorse athletic identity and the five dimensions of emerging adulthood?

The AIMS measures a person's level of athletic identity by having participants rate themselves on a 10-item instrument with responses ranging from "strongly disagree" to "strongly agree" on a 7-point scale, which yields a potential score ranging from 10-70 (Brewer, Van Raalte, & Linder, 1993). These items are summed to produce a single self-evaluation score that represents their athletic identity, higher scores on the AIMS correspond with stronger and more exclusive identification with the athlete role. The results of this study yielded 42 males and 53 females who completed the AIMS. The mean score on the AIMS for males was 59.71 and the mean score for females was 51.26. The mean score for the total 94 respondents was 55.0 with a standard deviation of 9.80. These results indicate that for this sample, males had a higher athletic identity and therefor more association with the athletic role than females. Overall, both males and females, reported moderate levels of athletic identity. To further explore athletic identity for the sample a one-way ANOVA was run to explore levels of athletic identity by participants' year in school. The results yielded the following mean scores: freshman = 57.93, sophomore = 58.73, junior = 53.45, senior = 47.94, 5th year = 49.75, and graduate student = 49.5 indicating that as students in this sample matriculate through college through their senior year athletic identity decreased and association with the athletic role weakened.

The IDEA, the instrument on Emerging Adulthood is a 31- item measure with six

subscales corresponding to the most prominent features of emerging adulthood: identity

exploration, exploration of possibilities, negativity or instability, other-focused, self-focused, and

feeling "in-between" (Reifman, Arnett & Colwell, 2007). Scores on each subscale represents the

degree to which individuals identify with each theme that is a characteristic of emerging

adulthood. The sixth subscale, "other-focused," which is not part of the original

conceptualization of emerging adulthood was developed to represent a counterpoint to self-focus

(Reifman et. al, 2007). The "other-focused" subscale represented concerns for others (e.g.,

"responsibility for others" and commitment to others") with the expectation that individuals who

do not fall in the age range of emerging adults would endorse the "other-focused" subscale more

so than emerging adults (Reifman et. al, 2007). As participants in this study were all within the

age range for emerging adulthood this subscale was not included. To score the scales items

within each subscale are averaged, higher scores on the subscales represents higher associations

with each characteristic of emerging adulthood. Responses are rated on a 1-4 scale, with possible

answers ranging from "strongly disagree" to "strongly agree." For the purpose of this study the

sixth subscale "other-focus" was not included as it is not part of the original conceptualization of

the theory of emerging adulthood. The five subscales used in this study were

experimentation/possibilities, self-focused, identity exploration, negativity/instability, and

identity exploration. The results of this study yielded 42 males and 53 females ages 18 -25 who

completed the IDEA. The mean scores for males on the IDEA subscales are as follows:

experimentation/possibilities = 3.41 (SD = .35), self-focused = 3.40 (SD = .37), identity

exploration = 3.30 (SD = .34), negativity/instability = 3.30 (SD = .33), and feeling-in-between =

3.24 (SD = .41). The mean scores for females on the IDEA subscales are as follows:

experimentation/possibilities = 3.39 (SD = .38), self-focused = 3.44 (SD = .35), identity

exploration = 3.36 (SD = .38), negativity/instability = 3.09 (SD = .44), and feeling-in-between =

3.42 (SD = .49). The mean scores for both males and females on the subscales representing the

five dimensions of emerging adulthood indicated a strong association with the process of

emerging adulthood for this sample with all scores being above three indicating that they are in

the top 25% of association with emerging adulthood. These findings are consistent with a study

conducted by Reifman et al. (2007) which measured the differences in all IDEA subscales for

emerging adults (18 – 29) which found that emerging adults scored in the top 25% of association

with the process of emerging adulthood.

Research Question Two: What are the relationships among student-athlete social

networking use, athletic identity, emerging adulthood, and well-being?

To answer the second research question, Pearson's product-moment correlations were

conducted to assess the relationships among the variables of interest in this study SMUIS, AIMS,

SWLS, PWB, and the IDEA. Social networking use, as measured by the SMUIS, was found to

have only one significant relationship among athletic identity, emerging adulthood, and well-

being. There was a statistically significant, moderate negative correlation between social media

use and the autonomy subscale of PWB, $r(81) = -.32$, p < .001. The results show that for this

sample one's social networking use has an impact on one's level of autonomy. Further, when

social networking use increases participants had less confidence in their opinions and were more

concerned with how others perceive them.

Athletic identity, as measured by the AIMS, was found to have several correlations

among the measures of emerging adulthood and well-being. Concerning emerging adulthood,

athletic identity was found to have a statistically significant, small negative correlation with the

self-focused subscale of the IDEA $r(81) = -.27$, p < .001, meaning those who scored higher in

athletic identity spend less time on self-focus. Additionally, athletic identity was found to have a

statistically significant, small negative correlation with the identity exploration subscale of the IDEA $r(81) = -.29$, p < .001, indicating that those with higher levels of athletic identity spend less time exploring one's identity. Lastly, in relation to emerging adulthood, athletic identity was found to have a statistically significant, small positive correlation with the negativity/instability subscale of the IDEA $r(81) = .26$, p < .001. The results show a positive relationship between athletic identity and negativity/instability indicating that those who have higher athletic identity also experience this period as one of instability as there are so many changes. Athletic identity was also found to have several statistically significant positive correlations with measures of well-being. Athletic identity was found to have a moderate positive correlation with the positive relations subscale of PWB, $r(81) = .48$, p < .001. Positive relations can be defined as one's ability to have satisfying relationships with others (Ryff, 1989), thus scores for athletic identity relate to positive relationships with others. Further, a moderate positive correlation was found between athletic identity and the purpose in life subscale of PWB, $r(81) = .45$, p < .001. According to Ryff (1989) purpose in life relates to having life goals and a belief that one's life is meaningful. The findings indicate a positive relationship such that as one's level of athletic identity increases so does one's purpose in life. Finally, a small positive correlation was found between athletic identity and satisfaction with life, $r(81) = .29$, p < .001, indicating that higher levels of athletic identity indicate more satisfaction with life.

Emerging adulthood, as measured by the subscales of the IDEA, and well-being, as measured by the subscales of PWB and SWLS, were found to have several statistically significant correlations. Arnett (2004) defines self-focus as a healthy temporary period that allows for further development of personal identity and focusing on one-self. First, the self-focused subscale of the IDEA was found to have a large negative correlation with the personal growth subscale of PWB, $r(81) = -.54$, p < .001. Personal growth is described as being open to

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new experiences, and having continued personal growth (Ryff, 1989). The results indicate that those scoring higher in self-focus are less open to new experiences and tend to act in ways that are familiar to them. Further, self-focus was found to have a moderate negative correlation with the positive relations with others subscale of PWB, $r(81) = -.36$, p < .001. The results show that those who over identity with emerging adulthood as a time of self-focus indicate less need for positive relationships with others. Lastly, self-focus was found to have a small negative correlation with the self-acceptance subscale of PWB, $r(81) = -.27$, p < .001. Self-acceptance indicates a positive attitude towards oneself and one's past life (Ryff, 1989). Results for this sample show that those who view emerging adulthood as a time of self-focus have lower levels of self-acceptance.

The identity exploration subscale of emerging adulthood measures to what extent one feels that emerging adulthood is a time in one's life for finding out who they are (Reifman et al., 2007). Identity exploration was found to have a small negative correlation with positive relations with others subscale of PWB, $r(81) = -.27$, p < .001. The results show that those who view emerging adulthood as a time of identity exploration indicate less need for positive relationships with others.

The experimentation/possibilities subscale of emerging adulthood measures the extent to which individuals feel that emerging adulthood is a time of many possibilities (Reifman et al., 2007). A moderate negative correlation was found between experimentation/possibilities and the personal growth subscale of PWB, $r(81) = -.38$, p < .001. The results indicate that as scores in experimentation/possibilities increase, one's openness to new experiences decreases. This may be unique to student-athletes, as they have an abundance of opportunities, but do not always have the time or ability to explore these opportunities due to the demands of their sport.

Lastly, the negativity/instability subscale of emerging adulthood did not have any

significant relationships with the subscales of PWB and SWLS. The negativity/instability subscale of the IDEA measures the extent to which individuals feel that emerging adulthood is a time of unpredictability (Reifman et al., 2007). The results of the correlations can be found in **Table 5.**

Research Question Three: Does student-athlete social networking use have an impact on well-being and athletic identity?

To answer the third research question a one-way multivariate analysis of variance (MANOVA) was run to determine the effect of social networking use on student-athletes' well-being and athletic identity. Seven dependent variables were used: autonomy, personal growth, positive relations, purpose in life, self-acceptance, SWLS, and athletic identity. The independent variable was social networking use as assessed by the SMUIS. Scores from the SMUIS were grouped into three categories: low ($n = 9$), moderate ($n = 59$), and high ($n = 27$). The differences between social networking use on the combined dependent variables was statistically significant, $F(14,174) = 3.004$, p < .001; Wilks' Lambda = 0.638; partial eta squared = 0.196.

Follow-up ANOVAs showed that the autonomy subscale of PWB score was statistically significantly different for different levels of social networking use, $F(2, 92) = 10.67$, p < .001; partial eta squared = 0.188. For this population, scores on the autonomy subscale of PWB decreased as social networking use increased. The group of low social networking use (M = 35.56, SD = 9.5) had higher autonomy scores than the group of moderate social networking use (M = 24.80, SD = 10.11). In addition, the group of low social networking use (M = 35.56, SD = 9.5) had higher autonomy scores than the group of high social networking use (M = 19.26, SD = 7.04). Tukey post hoc analysis revealed that the mean of autonomy decrease from low to moderate (-10.76, 99% CI [-20.69, -.83], p = .005) and the decrease from low to high (-16.30, 99% CI [-26.97, -5.62], p < .001) were statistically significant, but there was no statistically

significant difference between the moderate to high social networking use groups. The results indicate that participants who used social networking sites more often have a lower sense of autonomy in their thoughts and actions. Results from the MANOVA can be found in **Table 6**.

Research Question Four: Are there significant differences in student-athlete social networking use and well-being based on age, gender, or academic year?

To answer the fourth research question three ANOVAs were run to explore group differences in student-athlete social networking use and well-being, based on age, gender, or academic year. First, a one-way ANOVA was conducted to determine if student-athlete social networking use and well-being were different based on age groups. Participants were classified into three age groups: group 1: 18 – 19 (n = 41), group 2: 20 – 21 (n = 45), and group 3: 22 – 25 (n = 9). Seven dependent variables were used: SMUIS, autonomy, personal growth, positive relations, purpose in life, self-acceptance, and SWLS. The independent variable was age.

Results indicated that there were no statistically significant differences at the p < .01 level in SMUIS scores for the three age groups: F (2, 92) = 3.22, p = 0.04. In relation to well-being as measured by subscales of PWB and SWLS, one statistically significant difference was detected. The autonomy subscale of PWB was statistically significantly different for the three age groups, F(2, 92) = 5.63, p = 0.005. The effect size, calculated using eta squared, was 0.109, indicating a large effect. Scores on the autonomy subscale of PWB decreased from age group 1(18-19) (M = 27.76, SD = 10.07) to age group 2 (20-21) (M = 22.38, SD = 9.73) to age group 3 (22-25) (M = 17.56 , SD = 7.80), in that order. Tukey post hoc analysis revealed that the mean decrease from group 1 to group 2 (5.38, 95% CI [0.37, 10.38] and the decrease from group 1 to group 3 (10.2, 95% CI [1.67, 18.73] were not statistically significant (p = .041), The results indicate that as participants get older their feelings of autonomy, in relation to PWB, decrease. Results of the ANOVA can be found in **Table 7**.

Table 7

ANOVA of Well-being and Social Networking Use by Age

		Sum of Squares	df	Mean Square	F	Sig.
AVG SIMUS	Between Groups	1.819	2	.910	3.216	.045
	Within Groups	26.022	92	.283		
	Total	27.842	94			
Autonomy subscale of PWB	Between Groups	1065.071	2	532.535	5.625	.005**
	Within Groups	8710.361	92	94.678		
	Total	9775.432	94			
Personal Growth Subscale of PWB	Between Groups	110.020	2	55.010	2.051	.134
	Within Groups	2467.201	92	26.817		
	Total	2577.221	94			
Positive relations subscale of PWB	Between Groups	19.673	2	9.837	.191	.826
	Within Groups	4731.211	92	51.426		
	Total	4750.884	94			
Purpose in life subscale of PWB	Between Groups	180.008	2	90.004	3.297	.041
	Within Groups	2511.298	92	27.297		
	Total	2691.305	94			
Self-acceptance subscale of PWB	Between Groups	76.329	2	38.165	1.304	.276
	Within Groups	2692.197	92	29.263		
	Total	2768.526	94			
Total score for SWLS	Between Groups	10.038	2	5.019	.286	.752
	Within Groups	1615.583	92	17.561		
	Total	1625.621	94			

** Results are significant at .01

Next, a one-way ANOVA was performed to investigate gender differences in student-athlete well-being and social networking use. Seven dependent variables were used: SMUIS, PWB scales - autonomy, personal growth, positive relations, purpose in life, self-acceptance, and SWLS. The independent variable was gender. Results of the ANOVA indicated that there was not a statistically significant finding for social networking use based on gender.

The autonomy subscale of PWB was statistically significantly different for gender, $F(1, 93) = 8.19$, $p = 0.005$. The effect size, calculated using the eta squared, was 0.81, indicating a medium effect. Scores on the autonomy subscale of PWB were higher for females (M = 26.81, SD = 10.52) than males (M = 21.0, SD = 8.87). The results indicate that for this sample female student-athletes reported higher levels of autonomy within PWB, meaning that they feel more self-determined, better able to resist social pressures, and evaluate themselves by personal standards (Ryff & Keyes, 1995)

The positive relations subscale of PWB was statistically significantly different for gender, $F(1, 93) = 10.73$, $p < 0.001$. The effect size, calculated using the eta squared, was .104, indicating a small effect. Scores on the positive relations subscale of PWB were higher for females (M = 19.88, SD = 6.93) than males (M = 15.3, SD = 6.64). The positive relations subscale of PWB according to Ryff and Keyes (1995) measures how one interprets their relationships with others. Results for this sample indicate that female student-athletes have more satisfying and trusting relationships with others, are empathetic, and understand the give and take of relationships.

The purpose in life subscale of PWB was not statistically significantly different for gender, $F(1, 93) = 4.32$, $p = 0.04$. Additionally, there was not a statistically significant difference for the personal growth subscale of PWB by gender, $F(1, 93) = .147$, $p = 0.70$. Lastly, there was a not statistically significant difference in SWLS for gender, $F(1, 93) = 3.98$, $p = 0.49$. Results

from the ANOVA can be found in **Table 8**.

Table 8

ANOVA of Well-being and Social Networking Use by Gender

		Sum of Squares	df	Mean Square	F	Sig.
AVG SIMUS	Between Groups	.993	1	.993	3.441	.067
	Within Groups	26.848	93	.289		
	Total	27.842	94			
Autonomy subscale of PWB	Between Groups	791.318	1	791.318	8.191	.005**
	Within Groups	8984.113	93	96.603		
	Total	9775.432	94			
Personal Growth Subscale of PWB	Between Groups	4.055	1	4.055	.147	.703
	Within Groups	2573.166	93	27.668		
	Total	2577.221	94			
Positive relations subscale of PWB	Between Groups	491.310	1	491.310	10.727	.001**
	Within Groups	4259.575	93	45.802		
	Total	4750.884	94			
Purpose in life subscale of PWB	Between Groups	119.548	1	119.548	4.323	.040
	Within Groups	2571.757	93	27.653		
	Total	2691.305	94			
Self-acceptance subscale of PWB	Between Groups	36.546	1	36.546	1.244	.268
	Within Groups	2731.980	93	29.376		
	Total	2768.526	94			
Total score for SWLS	Between Groups	66.747	1	66.747	3.982	.049
	Within Groups	1558.874	93	16.762		
	Total	1625.621	94			

** Results are significant at .01

Lastly, a one-way ANOVA was performed to investigate differences in student-athlete well-being and social networking use based on their academic year. Seven dependent variables were used: SMUIS, autonomy, personal growth, positive relations, purpose in life, self-acceptance, and SWLS. The independent variable was academic year (Freshman, Sophomore, Junior, Senior). Results indicated that there were not statistically significant differences in student-athlete social networking use or well-being based on academic year. Results from the ANOVA can be found in **Table 9.**

Table 9

ANOVA of Well-being and Social Networking Use by Academic Year

		Sum of Squares	df	Mean Square	F	Sig.
AVG SIMUS	Between Groups	2.139	5	.428	1.482	.204
	Within Groups	25.702	89	.289		
	Total	27.842	94			
Autonomy subscale of PWB	Between Groups	978.293	5	195.659	1.979	.089
	Within Groups	8797.139	89	98.844		
	Total	9775.432	94			
Personal Growth Subscale of PWB	Between Groups	159.983	5	31.997	1.178	.326
	Within Groups	2417.238	89	27.160		
	Total	2577.221	94			
Positive relations subscale of PWB	Between Groups	99.835	5	19.967	.382	.860
	Within Groups	4651.049	89	52.259		
	Total	4750.884	94			
Purpose in life subscale of PWB	Between Groups	301.704	5	60.341	2.247	.056
	Within Groups	2389.601	89	26.849		
	Total	2691.305	94			
Self-acceptance subscale of PWB	Between Groups	83.189	5	16.638	.551	.737
	Within Groups	2685.338	89	30.172		
	Total	2768.526	94			
Total score for SWLS	Between Groups	38.523	5	7.705	.432	.825
	Within Groups	1587.098	89	17.833		
	Total	1625.621	94			

Research Question Five: Is there a relationship between student athlete well-being and athletic identity?

To answer the fifth research question a Pearson's product-moment correlation was conducted to assess the relationships among athletic identity and well-being. Athletic identity was also found to have statistically significant positive correlations with measures of well-being. Athletic identity was found to have a moderate positive correlation was found between athletic identity and the positive relations subscale of PWB, $r(81) = .48$, $p < .001$. Positive relations can be defined as one's ability to have satisfying relationships with others (Ryff, 1989), thus scores for athletic identity impact one's need for positive relationships with others. Further, a moderate positive correlation was found between athletic identity and the purpose in life subscale of PWB, $r(81) = .45$, $p < .001$. According to Ryff (1989) purpose in life relates to having life goals and a belief that one's life is meaningful. The findings indicate a positive relationship such that as one's level of athletic identity strengthens so too does one's purpose in life. Finally, a small positive correlation was found between athletic identity and satisfaction with life, $r(81) = .29$, $p < .001$, indicating that higher levels of athletic identity indicate more satisfaction with life.

To further explore this research question a multiple regression was performed between athletic identity as the dependent variable and well-being (as measured by the subscales of PWB which are autonomy, personal growth, positive relations, purpose in life, self-acceptance, and the SWLS) as the independent variables. **Table 10a** and **10b** display the correlations between the variables, the standardized regression coefficients (β), the R^2, and adjusted R^2. R for regression was significantly different from zero $F(6, 88) = 8.23$, $p < .001$, with R^2 at .359. The adjusted R^2 value of .316 indicates that 31.6% of the variance in athletic identity is predicted by well-being. Two subscales of PWB, positive relations (B = .51, p =.002) and purpose in life (B = .49, p <

.001), had statistically significant effects on athletic identity; autonomy, personal growth, self-acceptance, and SWLS did not. According to Ryff & Keyes (1995) the positive relations subscale of PWB measures the extent to which individuals feel that they have warm, satisfying, and trusting relationships with others as well as their capability to have empathy and understand human relationships. Further, purpose in life measures the extent to which individuals have goals and a sense of directedness and feel that there is meaning to past and present life. The size and direction of the relationships suggest that participants who indicated having satisfying relationships with others and a sense of directedness in life reported higher levels of athletic identity. These findings suggest that one's ability to have meaningful relationships with others and have goals in life may increase athletic identity.

Table 10a

Model Summary for Standard Multiple Regression of Well-being on Athletic Identity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.600[a]	.359	.316	8.114

   a. Predictors: (constant) autonomy, personal growth, positive relations, purpose in life, self-acceptance, and satisfaction with life
   b. Dependent Variable: athletic identity

Table 10b

Standard Multiple Regression of Well-being on Athletic Identity

Variables	M	SD	AIMS	Autonomy	Personal Growth	Positive Relations	Self-acceptance	Satisfaction with life	β
Autonomy	24.2	10.2	-.163	1					.034
Personal Growth	15.1	5.2	.186	.275	1				.167
Positive Relations	17.3	7.1	.480	-.192	.553	1			.510**
Purpose in life	18.2	5.4	.447	.248	.554	.566	1		.494**
Self-acceptance	19.3	5.4	.089	.456	.562	.421	.539	1	.131
Satisfaction with life	13.5	4.2	.294	.204	.596	.712	.694	.642	.237

   ** $p < .01$

Summary

This study was conducted to examine the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood. Furthermore, this study aimed to investigate differences in social networking use and well-being based on participants' age, gender, and years in sport. To answer these questions, a brief demographic questionnaire, the Social Media Use and Integration Scale (SMUIS), the Inventory of the Dimensions of Emerging Adulthood (IDEA), the Athletic Identity Measurement Scale (AIMS), the scale of Psychological Well-being (PWB), and the Satisfaction with Life Scale (SWLS) were used. Results from this study indicated that males have higher levels of athletic identity than females, and that both males and females reported a strong association with the process of emerging adulthood. Scores on the autonomy subscale of PWB decreased as social networking use increased. Further, there were no statistically significant differences in social networking use based on participants age, gender, or academic year. When looking at the impact of age on student-athlete well-being the results showed that for this sample scores on the autonomy subscale of PWB decreased as student-athletes got older. In addition, when looking at the impact of gender on student-athlete well-being the results indicate for this sample that females scored higher on the autonomy and positive relations with others subscales. Lastly, athletic identity was found to have a relationship with student-athlete well-being, indicating that one's ability to have satisfying relationships with others and a sense of directedness in life is related to their athletic identity.

Chapter IV

Discussion

The purpose of the current study is to examine the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood. The study was conducted to determine if there were relationships among student athlete's social networking use, emerging adulthood, athletic identity, and student-athletes' level of well- being as determined by Ryff's (1989) Psychological Well-being scale and Satisfaction with Life (Diener et al. 1985). Results from the Social Media Use and Integration Scale (SMUIS), the Inventory of the Dimensions of Emerging Adulthood (IDEA), the Athletic Identity Measurement Scale (AIMS), the scale of Psychological Well-being (PWB), the Satisfaction with Life Scale (SWLS), and a brief demographic questionnaire will be reviewed in this chapter. Additionally, implications for counselors, athletic department personnel, and other professionals working with student-athletes to help understand how social networking use may impact student-athletes' well-being will be discussed. Finally, limitations to the current study and recommendations for future research will be discussed.

Overview

In the fall of 2016, 16.9 million students were enrolled in U.S. colleges which is an increase of 28 percent from 2000, when enrollment was 13.2 million students (National Center for Educational Statistics, 2018). With increases in the typical, college-aged student population (also known as the emerging adult [EA] population) and increase in enrollment rates (National Center for Educational Statistics, 2018), the emerging adult population is experiencing greater interest from researchers, educators, administrators and those working with this population within the higher education setting (Taber & Blankemeyer, 2015). Arnett's theory of emerging

adulthood identifies this as a developmental phase between adolescence and young adulthood (Arnett, 2006). The theory focuses on individuals ages 18-25 and examines this distinct period demographically, subjectively, and for identity exploration (Arnett, 2004). Arnett (2006) stated that many emerging adults begin to feel like an adult at 18 or 19, but do not completely feel like an adult until their mid - to late - 20's because they are not yet confident in accepting responsibility, making decisions, or having financial independence. As student-athletes are typically between the ages of 18 and 25, falling within the traditional college student age range, they are in the developmental stage of emerging adulthood. Exploring student-athlete well-being within the emerging adulthood framework will allow counselors and athletic department personnel to develop an understanding of the unique experiences of student-athletes as emerging adults and develop specific interventions to meet the varying needs of this population.

There is a need for researchers to explore how internal and external factors contribute to student-athletes' well-being due to an increased focus by the NCAA on promoting student-athlete mental health and well-being (NCAA Multidisciplinary Taskforce, 2016). While athletic departments, coaches, and athletic trainers have begun to screen student-athletes for several factors related to well-being and mental health, such as alcohol use, anxiety, and depression among others, there is no screening tool endorsed by the NCAA that is specifically related to the use of social networking.

College has been found to be a stressful experience for students, a time when young adults experience freedom and find themselves navigating developmental tasks along with interpersonal relationships and academic responsibilities (Beard, Elmore, & Lange, 1982). However, student-athletes also face several stressors unique unto them such as, balancing athletic and academic activities, isolation from peers due to athletic activities, balancing success or lack

thereof, managing relationships, and the termination of one's athletic career (Parham, 1993). In addition to common stressors faced by college students, social networking sites have become an area of interest for researchers due to the population's ability to quickly adopt new technologies and engage in social networks (Lewis, Kaufman, & Christakis, 2008). Currently, 69% of the public utilizes social networking sites to connect with others, share information, engage with content, or entertainment (Pew Research Center, 2018). The growth in use of social networking sites in the last 13 years has largely impacted the way individuals form and maintain social connections as well as how they communicate with one another. Browning and Sanderson (2012), stated that social networking and the college experience are inseparable, and found that college students disclose personal information via social networks freely and frequently. Unlike typical college students, student-athletes are more visible and subject to greater scrutiny and criticism in relation to both their personal choices and athletic performance which is heightened by social networking platforms (Browning & Sanderson, 2012). Student-athletes are publicly praised and criticized by the media and by people whom they have never met, which in turn influences the student-athletes' self-worth (Etzel, Ferrante, & Pinkney, 2002). The increase in use and prominence of social networking in the college student population indicates a need to understand the relationship between student athlete's social networking use and their well-being.

The current study was designed to develop an understanding of the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being. Additionally, factors such as age, gender and number of years involved with sport were examined to identify differences that may exist with regard to these factors. Results from this study can be used to provide counselors, athletic department personnel, and other professionals working with student-athletes with information to help them understand how social networking

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use impacts student-athletes' well-being and provide practical implications for education and interventions to promote student-athlete well-being in relation to social networking.

Discussion of Results

As student-athletes are typically between the ages of 18 and 25, falling within the traditional college student age range, they are in the developmental stage of emerging adulthood. Emerging adulthood, which is a developmental phase between adolescence and young adulthood during where individuals experience delays in attainment of adult roles and social expectations (Arnett, 2000; 2006) compared to past generations. The theory focuses on individuals ages 18-25 and looks at this distinct period demographically, subjectively, and for identity exploration (Arnett, 2004; Galambos, Barker, & Krahn, 2006).

For athletes, identification with their role in sports begins as early as childhood and continues throughout their developmental and adult years (McPhersoson, 1980). Determining the perception of the athletic role of student-athletes is useful because athletic identity has some predictive traits (Brewer et al., 1999). Athletic identity is revealed as a unique and significant part of the self-concept that can be considered as both a cognitive structure and social role (Brewer et al., 1993). Brewer et al. (1993) postulated that a strong athletic identity may prove to be beneficial to an athlete (e.g. Hercules' muscle) but may also be a liability (e.g. Achilles' heel).

The present study sought to develop an understanding of the level of endorsement of both emerging adulthood and athletic identity by student-athletes. For athletic identity, males scored higher (M= 59.71) than females (51.26) which means that for this sample, males have a stronger association with their athletic identity. This finding is consistent with a study by Brewer and Cornelius's (2002) which found that males had higher athletic identifier scores than females. In addition, Mills and Christensen (2006) conducted research on the relationship between athletic

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identity and the level of sport participation and found that athletes who competed at high levels, as well as athletes who achieved success in athletics displayed higher levels of athletic identity. Seeing as all student-athletes in this study compete at the highest level of intercollegiate competition, Division I, it could be that the male student-athletes in this study perceived themselves as more successful resulting in higher levels of athletic identity. Further, as student-athletes matriculate through college their AIMS scores decreased (freshman = 57.93, sophomore = 58.73, junior = 53.45, senior = 47.94). This finding is consistent with Brewer et al. (1993) found an inverse relationship as the AIMS score correlated negatively with age in college athletes. They suggested, that as college students mature and become exposed to a variety of activities and influences, their exclusive identification with the athlete role decreases (Brewer et al., 1993).

To measure student-athlete's identification with emerging adulthood for this sample, the IDEA was utilized. The mean scores for both males and females on the subscales representing the five dimensions of emerging adulthood indicated a strong association with the process of emerging adulthood for this sample with all scores being above three, indicating that they are in the top 25% of association with emerging adulthood. These findings are consistent with a study conducted by Reifman et al. (2007) which measured the differences in all IDEA subscales for emerging adults (18 – 29) which found that emerging adults scored in the top 25% for identification with emerging adulthood. This finding suggests that participants in this study strongly identify with the characteristics of emerging adulthood.

Relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being were explored using correlational analyses. The results showed several statistically significant findings among the variables. Social networking use was

measured using the SMUIS and found to have only one statistically significant relationship. There was a moderate negative correlation between social networking use and the autonomy subscale of PWB indicating for this sample that as social networking use increases, participants had less confidence in their opinions and were more concerned with how others perceive them, affecting their autonomy.

Additionally, the relationship between athletic identity and emerging adulthood was explored using correlational analysis. Results indicated that both positive and negative correlations existed between athletic identity and emerging adulthood. First, athletic identity was found to have a statistically significant, yet small negative correlation with the self-focused subscale of the IDEA meaning those who scored higher in athletic identity feel that emerging adulthood is not a time for focusing on oneself, but rather focusing on athletics. Additionally, athletic identity was found to have a statistically significant, small negative correlation with the identity exploration subscale of the IDEA indicating that those with higher levels of athletic identity view emerging adulthood as less of a time to explore one's identity. This may be due to the fact that NCAA Division I student-athletes have less free time to explore other non-sport related activities which in turn limits their ability to develop identities other than that of an athlete. Student-athletes may also be singularly focused on developing as an athlete in order to achieve goals related to sport, which may impact their ability to allow themselves to explore other aspects of their own identity. Lastly, in relation to emerging adulthood, athletic identity was found to have a statistically significant, small positive correlation with the negativity/instability subscale of the IDEA, the results show that as one's athletic identity strengthens their view of emerging adulthood as a time of instability, when change can be unsettling also increases. This may be the result of instability within their sport as coaches often

change rosters based on performance, injury can occur at any time, student-athletes future playing professional sports is uncertain, and fears about the transition from college athletics to life after college. The results show that for this sample student-athletes with high levels of athletic identity spend more time focusing on athletics, explore their own identity less, and feel that this is a time in life where change is unsettling.

Athletic identity was also found to have several statistically significant positive correlations with measures of well-being. Results showed a moderate positive correlation with the positive relations subscale of PWB indicating that as association with one's athletic identity increases so too does their ability to develop and maintain relationships with others. Athletic identity was also found to have a moderate positive correlation with the purpose in life subscale of PWB meaning that as one's level of athletic identity increases participants have goals and more of a sense of directedness in life. Lastly, a small positive correlation was found between athletic identity and satisfaction with life indicating that as identification with one's athletic identity strengthens, satisfaction with life increases.

Further, the relationships among emerging adulthood and well-being were explored using correlational analysis. The self-focused subscale of emerging adulthood was found to have several negative correlations with the measures of well-being. A large negative correlation was found between self-focused and the personal growth subscale of PWB indicating that those who scored higher in self-focus are less open to new experiences and tend to act in ways that are familiar to them. The self-focused subscale was also found to have a moderate negative correlation with the positive relations with others subscale of PWB indicate that those who over identify with emerging adulthood as a time of self-focus indicate less need for positive relationships with others. Lastly, self-focus was found to have a small negative correlation with the self-acceptance subscale of PWB indicating that those who view emerging adulthood as a

time of self-focus have lower levels of self-acceptance. In relation to the identity exploration subscale of emerging adulthood, results show a small negative correlation with the positive relations with others subscale, meaning those who view emerging adulthood as a time of identity exploration indicate less need for positive relations with others. When looking at the experimentation/possibilities subscale of emerging adulthood and the personal growth subscale of PWB, a moderate negative correlation was found indicating that as scores in experimentation/possibilities increases, one's openness to new experiences decreases. This may be unique to student-athletes, as they have an abundance of opportunities, but do not always have the time or ability to explore these opportunities due to the demands of their sport.

The present study aimed to develop an understanding of the relationships among student-athlete social networking use, athletic identity, and well-being. While no other studies have explored the relationship among student-athlete social networking use, athletic identity, and well-being the results indicate that there is a relationship between social networking use and well-being, specifically the autonomy subscale of PWB. According to Ryff and Keyes (1995) higher scorers in autonomy are self-determining and independent, able to resist social pressures to think and act in certain ways and evaluates self by personal standards. The results indicate that participants who used social networking sites and integrated them into everyday life at lower levels have a higher sense of autonomy in their thoughts and actions. It is important to note that only 9 of the 95 student-athletes who participated in this study were determined to be low users of social networking as indicated by their scores on the SMUIS. The majority of participants identified as either moderate or high users of social networking. The decrease in mean scores from low social networking use group to the moderate social networking use group, as well as the low social networking use group to high social networking use group was statistically

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significant indicating that the more student-athletes use social networking sites and integrate it into their daily lives the less able they are to resist social pressures to think and act in certain ways. Further, greater use of social networking by student-athletes may impact their ability to evaluate themselves by personal standards which may impact their well-being.

The present study also aimed to develop an understanding of differences in student-athlete social networking use and well-being based on age, gender, and academic year. The results found that there was no difference in social networking use based on age, gender, or academic year for this sample. In relation to well-being and age there was a statistically significant difference on the autonomy subscale of PWB. The results indicate that as participants get older their scores on the autonomy subscale of PWB decreased. This finding may be due to the fact that as student-athletes approach graduation they become more concerned with the expectations and evaluations of others and rely on judgements of others to make important decisions. Further, statistically significant differences in well-being were found for gender. The results indicate that for this sample female student-athletes scored higher on the autonomy subscale of PWB than males. According to Ryff and Keyes (1995) higher scorers on autonomy indicate greater self-determined, greater ability to resist social pressures, and the evaluate themselves based on personal standards. In addition, females scored higher on the positive relations with others subscale of PWB than males. According to Ryff and Keyes (1995) higher scorers on positive relations with others have satisfying and trusting relationships with others and is concerned about the welfare of others. The results indicate that female student-athletes are more self-determined and self-directed and have more satisfying and trusting relationships with others than male student-athletes. Lastly, no statistically significant relationships were found for student-athlete social networking use and well-being based on academic year.

Finally, the current study aimed to examine the relationship between student-athlete well-being and athletic identity. According to Van Rens, Ahshley, and Steele (2019) the research looking at the associations between athletic identity and well-being are scarce and inconclusive. As previously noted, strong athletic identity may have both negative and positive consequences (Brewer et al., 1993). In the present study athletic identity was found to have a positive correlation with measures of well-being indicating that stronger identification with one's athletic identity was related to higher levels of psychological well-being as measured by subscales of PWB and the SWLS. Further, 31.6% of the variability in athletic identity was accounted for by the positive relations and purpose in life subscales of PWB. How athletes view themselves, what is important to them, and what they value all define an athlete's level of identity. Athletic performance is often a key factor in athletes' lives, especially in regard to their identity. This may be due to the perception that sports are a representation of who they are (Brewer et al., 2012). In accordance with this research, having positive well-being is beneficial because it allows for a strong and salient athletic identity.

In summary, it appears that the relationship between student-athlete well-being and athletic identity is the most significant finding for this study. Athletic identity is one of the major factors impacting on athletes' personal and psychological development, with the possession of a strong and exclusive level of athletic identity found to be associated with the restricted development of a multi-dimensional self, adjustment difficulties following retirement from sport, post-injury emotional distress, social isolation, and delays in career maturity (Brewer, 1993; Kornspan & Etzel, 2001; Tasiemski, Kennedy, Gardner, & Blaikley, 2004). Understanding that there is a positive relationship between one's athletic identity and well-being will allow counselors and those working with student-athletes to explore one's well-being more

purposefully and use it to develop a healthy association with one's athletic identity and help improve student-athletes' college experience. These findings are particularly important to developing holistic student-athlete support in which student-athletes should be encouraged to explore their own athletic identity as well as other multidimensional identities in order to help facilitate an environment in which student-athletes can fulfil their self-determined needs.

Implications of the Current Study

The current study has added to the literature regarding NCAA Division I student-athletes. Research investigating the associations among multidimensional identities and the well-being of student-athletes is limited (Yukhymenko-Lescroart, 2014).The findings in the present study provide counselors, athletic department personnel, and other professionals working with student-athletes with valuable information to educated and prepare student-athletes about athletic identity, social networking use, and well-being. The knowledge of the athletic identity, social networking use, and well-being of student-athletes could be very useful for NCAA institutions because it could help them better develop academic advising, career counseling, and other student service programs to meet the needs of their student-athletes.

Findings from this research study provides evidence that student-athletes strongly identify with the process of emerging adulthood and therefore support personnel and athletes should be educated about this developmental theory. Understanding how student-athletes view themselves in terms of adulthood can help inform programing efforts related to transition to college and life after college such as, mentoring programs and career exploration workshops.

Additionally, findings from this study indicated that there were positive relationships between athletic identity and well-being. Student-athletes should receive education about what athletic identity is, how psychological well-being impacts athletic identity, as well as the possible

benefits and consequences related to having a strong athletic identity. Strong identification with athletic identity has been found to result in an increased sense of belonging to the sport or to the team, increased social status among peers, higher global self-esteem, and acquisition of transferable skills such as work ethic, time-management, goal-oriented behavior, discipline, commitment, team-work skills, and leadership qualities (McKnight et al., 2009; Bowker, Gadbois & Cornock, 2003; Horton & Mack, 2000; Ryska, 2002; Brewer et al., 1993). Conversely, over-commitment to an athletic role restricts some student-athletes' identity development and increases an athlete's likelihood of experiencing difficulty navigating sport career or status changes, including career-threatening injuries or the end of athletic career (Ryska, 2002; Murphy, Petipas, & Brewer, 1996). Counselors working with student-athletes may want to explore the concept of well-being and athletic identity with student-athletes using the framework of emerging adulthood in order to better understand how one views themselves and allow student-athletes to explore other aspects of their own identity in order to facilitate a multidimensional self.

Limitations

One limitation of the current study is its reliance on self-report measures. Survey research by nature is generally subject to various threats to internal validity as there is no experimental control, randomization of groups, or manipulations of the independent variable. Therefore, there is a threat to construct validity as each instrument and the demographic questionnaire are all self-report surveys delivered via the internet.

Furthermore, the length of the survey may have resulted in potential participants choosing not to participate in the study. Though the total amount of time needed to complete the survey was less than 15 minutes, there were several measures included in the survey. The number of questions may have caused potential participants to choose not to take the survey.

Another limitation of the present study is the lack of racial diversity represented within the study's participants, as a large majority of the participants identified as white (N = 62, 65.3 %). It would have been beneficial to have more participants from various racial and ethnic groups represented in the study to have more diverse inclusion of experiences, so these results may not be applicable to all racial groups.

Lastly, the inclusion of a nonathletic control group would have proved useful. This would have enabled results between student-athletes and nonathletes to be compared. By including a nonathlete group would have been useful in developing a better understanding of how student-athletes differ from the population of college students.

Future Recommendations for Research

Despite the aforementioned limitations, this study has added to the literature discussing athletic identity, social networking, emerging adulthood, and well-being among Division I student-athletes. Similar research studies should be conducted at a wide variety of institutions across all divisions of the NCAA in order to increase the number of participants with different levels of playing experiences and demographic backgrounds.

Future research should consider investigating the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being longitudinally in order to observe differences in the sample over time. Exploring these relationships over time would help those working with student-athletes better understand the student-athlete experience.

By better understanding student-athletes' experiences as they matriculate through college can help inform trainings and interventions to mitigate negative experiences of student-athletes.

The results of this study showed many positive relationships between athletic-identity and well-being. Future research should consider exploring the constructs of well-being athletic identity to determine its usefulness in grouping athletes in order to determine athlete types, similar to the Meyers Briggs personality types. Using levels of athletic identity to determine areas where student-athletes may need more support or guidance could be beneficial to student-athlete development and provide more prescriptive implications for programming efforts. This would also allow for coaches and teams to utilize the AIMS to assist with managing team dynamics and supporting individual players based on their needs.

Summary

This research study established an understanding of the levels of athletic identity and association with the developmental process of emerging adulthood for Division I student-athletes. In addition, this study explored the relationships among student-athlete athletic identity, social networking, emerging adulthood, and well-being and determined that there are in facts relationships among the variables. Student-athletes for this sample strongly identify with their athletic identity and are in the top 25% of association with emerging adulthood. Several statistically significant correlations were found among the variables of interest for this study. Scores on the autonomy subscale of PWB decreased as social networking use increased. There were no differences in social networking use based on age, gender, or academic year however, scores on the autonomy subscale of PWB decreased as student-athletes got older. Further, female student-athletes scored higher on the autonomy and positive relations with others subscales of PWB. Lastly, student-athlete well-being and athletic identity were found to have a positive

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relationship, indicating that more positive psychological well-being, specifically more satisfying relationships with others and a sense of directedness in life increases one's athletic identity. These findings can be used by counselors, athletic department personnel, and other professionals working with student-athletes to improve well-being and improve the overall student-athlete experience.

Chapter V

Manuscript

Abstract

The purpose of this study was to develop an understanding of the relationships among student-athlete social networking use, athletic identity, and well-being through the lens of emerging adulthood. Participants of this study were a national sample of 95 Division I student-athletes. The research study established that student-athletes endorse the five dimensions of emerging adulthood and have a strong athletic identity. In addition, this study found that the less student-athlete's used social networking the higher they scored on the autonomy subscale of PWB. There were no differences in social networking use based on age, gender, or academic year however, scores on the autonomy subscale of PWB decreased as student-athletes got older. Further, female student-athletes scored higher on the autonomy and positive relations with others subscales of PWB. Lastly, the results showed that having more satisfying relationships with others and having a sense of directedness in results in higher levels of athletic identity for student-athletes. These findings can be used by counselors, athletic department personnel, and other professionals working with student-athletes to improve well-being and improve the overall student-athlete experience.

Introduction and Background

In the fall of 2016, 16.9 million students were enrolled in U.S. colleges which is an increase of 28 percent from 2000, when enrollment was 13.2 million students (National Center for Educational Statistics, 2018). With increases in the typical, college-aged student population (also known as the emerging adult [EA] population) and increase in enrollment rates (National

Center for Educational Statistics, 2018), the emerging adult population is experiencing greater interest from researchers, educators, administrators and those working with this population within the higher education setting (Taber & Blankemeyer, 2015). Arnett's theory of emerging adulthood is a developmental phase between adolescence and young adulthood (Arnett, 2006). The theory focuses on individuals ages 18-25 and examines this distinct period demographically, subjectively, and for identity exploration (Arnett, 2004). Arnett (2006) stated that many emerging adults begin to feel like an adult at 18 or 19, but do not completely feel like an adult until their mid - to late - 20's because they are not yet confident in accepting responsibility, making decisions, or having financial independence. As student-athletes are typically between the ages of 18 and 25, falling within the traditional college student age range, they are in the developmental stage of emerging adulthood. Exploring student-athlete well-being within the emerging adulthood framework will allow counselors and athletic department personnel to develop an understanding of the unique experiences of student-athletes as emerging adults and develop specific interventions to meet the varying needs of this population.

The term "student-athlete" was developed by the National Collegiate Athletic Association (NCAA) in 1950's to reference college students that participate in collegiate athletics and emphasize the association's belief that student-athletes are students first and athletes second, (NCAA, 2018a; McCormick & McCormick, 2006; Sack & Staurowsky, 2005). While there is a plethora of research about factors related to college students' well-being, such as social networking, academic performance, and social connection there is little research on how social networking impacts student-athlete's well-being. There is a need for researchers to explore how internal and external factors contribute to student-athletes' well-being due to an increased focus by the NCAA on promoting student-athlete mental health and well-being (NCAA

Multidisciplinary Taskforce, 2016). While athletic departments, coaches, and athletic trainers have begun to screen student-athletes for several factors related to well-being and mental health, such as alcohol use, anxiety, and depression among others, there is no screening tool endorsed by the NCAA that is specifically related to the use of social networking. Conducting research focused on student-athletes' well-being in relation to their social networking use will allow those working with this population to better support student-athletes in navigating social media and managing social relationships as they matriculate through college, focusing on improved mental health and well-being and improving the overall student-athlete experience.

According to the most recent NCAA bylaws (2018) a student-athlete is a student who has been solicited by a member of the athletic staff or other interested party associated with athletics and who actively participates on one or more intercollegiate team under the jurisdiction of the athletics department (bylaw 12.02.14). Due to the emphasis placed on the identity of "student" followed by "athlete" by the NCAA, one can conclude that student-athletes share many of the same responsibilities and stressors as their non-athlete peers. College has been found to be a stressful experience for students, a time when young adults experience freedom and find themselves navigating developmental tasks along with interpersonal relationships and academic responsibilities (Beard, Elmore, & Lange, 1982). However, student-athletes also face several stressors unique unto them such as, balancing athletic and academic activities, isolation from peers due to athletic activities, balancing success or lack thereof, managing relationships, and the termination of one's athletic career (Parham, 1993).

In addition to common stressors faced by college students, social networking sites have become an area of interest for researchers due to the population's ability to quickly adopt new technologies and engage in social networks (Lewis, Kaufman, & Christakis, 2008). Social

networking sites are web-based services that allow individuals to construct profiles in order to connect with other users to develop and maintain social connections (Ellison & Boyd, 2013). In 2005, 5% of American adults used social networks. Currently, 69% of the public utilizes social networking sites to connect with others, share information, engage with content, or entertainment (Pew Research Center, 2018). The growth in use of social networking sites in the last 13 years has largely impacted the way individuals form and maintain social connections as well as how they communicate with one another. Browning and Sanderson (2012), stated that social networking and the college experience are inseparable, and found that college students disclose personal information via social networks freely and frequently. Unlike typical college students, student-athletes are more visible and subject to greater scrutiny and criticism in relation to both their personal choices and athletic performance which is heightened by social networking platforms (Browning & Sanderson, 2012). Student-athletes are publicly praised and criticized by the media and by people whom they have never met, which in turn influences the student-athletes' self-worth (Etzel, Ferrante, & Pinkney, 2002). The increase in use and prominence of social networking in the college student population indicates a need to understand the relationship between student athlete's social networking use and their well-being.

This chapter provides a review of the literature of the primary factors in the current research study including: emerging adulthood, social networking use, athletic identity, and well-being. Additionally, factors such as age, gender and number of years involved with sport will also be examined to identify differences that may exist with regard to these factors. Following a thorough review of the literature, there is no empirical research to date focused on exploring the relationship between social networking use and student-athlete well-being through the lens of emerging adulthood. This research study aims to fill the gaps in the literature related to the

relationships among student-athlete social networking use, emerging adulthood, student-athlete athletic identity, and well-being.

Significance of the Study

Student-athletes at Division I institutions, unlike a majority of their non-athlete peers, are easily identifiable figures on college campuses (Gaston-Gayles, 2003). The level of visibility can create different expectations about how student-athletes carry themselves, respond to adversity, and perform both physically and mentally. The 2015 NCAA GOALS study (Paskus & Bell, 2016) noted that college campuses have seen an increase in mental health issues, anxiety, and depression, and 30% of NCAA student-athletes reported having overwhelming distress in the last month, an increase of more than 5% since 2010. College student-athletes experience additional stressors that their non-athlete peers do not such as, balancing athletic and academic activities, isolation from athletic pursuits, balancing success or lack thereof, managing relationships, and the termination of one's career (Parham, 1993). The various challenges and stressors experienced by the student-athlete population can impact their well-being and can attribute to physical and mental exhaustion (Beauchemin, 2014; Ferrante, Etzel, & Lantz, 1996). For athletes, greater psychological well-being is associated with lower negative emotional and physical states which aids in fostering athletic performance (Hardy et al., 1996).

In addition to common stressors faced by emerging adults, social networking sites have become an area of interest for researchers, due to the population's ability to adopt new technologies and engage in social networks (Lewis, Kaufman, & Christakis, 2008). Young adults ages 18-24 use social networking sites more frequently and in more places than any other age group (Bonds-Raacke & Raacke, 2011). Young (1996) found that anywhere from ten to fifty percent of college students report usage that could be classified as internet abuse, addiction, or

problematic. The negative aspects of social networking may affect student-athletes and consequently impact perceptions of well-being, success, and performance.

The student-athlete population is receiving more attention in the areas of mental health and well-being, however there is still a large gap in the literature concerning issues pertinent to student-athletes, specifically how social networking impacts student-athlete well-being. This research will expand the emerging adulthood literature by exploring the relationships among emerging adult student-athlete social networking usage, student-athlete athletic identity, and various aspects of well-being to see if there is a connection between social networking use well-being. Research gained from this will inform counselors, athletic department personnel, and other professionals working with student-athletes about the relationships among emerging adult student-athlete social networking use, athletic identity, and well-being and provide implications for helping student-athletes navigate their own experience with social networking in a manner that promotes well-being.

Purpose of the Study

The purpose of this quantitative research study is to examine the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood. The study is being conducted to determine if there are relationships among student athlete's social networking use, emerging adulthood, athletic identity, and student-athletes' level of well-being (as determined by Ryff's (1989) Psychological Well-being scale and Satisfaction with Life (Diener et al. 1985). The independent variables include emerging adulthood, social networking use and athletic identity, while the dependent variable is well-being. Using the emerging adulthood framework, the findings will provide implications for counselors, athletic department personnel, and other professionals working with student-athletes

to help understand how social networking use may impact student-athletes' well-being, and provide practical implications for education and interventions to promote student-athlete well-being in relation to social networking.

Methodology

Research Questions

1. To what degree do student-athletes endorse athletic identity and the five dimensions of emerging adulthood?

2. What are the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being?

3. Does student-athlete social networking use have an impact on well-being and/or athletic identity?

4. Are there significant differences in student athlete social networking use and well-being based on age, gender, or academic year?

5. Is there a relationship between student-athlete well-being and athletic identity?

Participants

Participants for this study were recruited from a sample of current Division I student-athletes. In order to participate in this study, participants were emerging adults ages 18-25, currently enrolled as a student-athlete at a Division I institution, and active users of social networking sites. Participants of this study were recruited from a variety of sources including professional contacts throughout the country at various Division I institutions, social networking platforms, and university emails. The primary source of recruitment was Division I athletic departments. The researcher emailed the athletic directors at all Division I institutions to inform athletic directors of the current study and asked for permission to contact their student-athletes in order to invite them to participate in the study. Upon being granted permission the researcher

contacted current Division I student-athletes via email which included an informational letter

which described the study and asked for their participation. In addition, participants were also

recruited via snowball sampling by inviting participants to share this study with fellow student-

athletes at other Division I institutions. According to the NCAA (2018) there are approximately 180,000 student-athletes competing on collegiate teams at 347 Division I institutions across 49 states.

Procedures

The survey was administered using Qualtrics software. The survey consisted of four parts. The first part was the informational letter that included a statement of informed consent, which in this case was passive consent (i.e., participants agreed that they had been fully informed of the parameters, benefits, and ethics of participating in the study and that hey consented to participate in the study by clicking the survey link). The second part included the demographic questionnaire which can be found in Appendix D. The third part of the survey included the five instruments used in this study: the Social Media Use Integration Scale (SMUIS; Jenkins-Guarnieri, Wright, & Johnson, 2013), the Athletic Identity Measurement Scale (AIMS; Brewer, Van Raatle, & Linder, 1993), the Scale of Psychological Well-being (Ryff, 1989), the Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and the Inventory of the Dimensions of Emerging Adulthood (Reifman, Arnett, & Colwell, 2007). The instruments are included in Appendix E, F, G, H and I respectively. De-identified data were collected and stored in Qualtrics, which was then exported and analyzed using IBM SPSS Statistics software (version 26). Lastly, the fourth part of the survey was a link that directed participants to another survey where they entered their email address to register for the incentive drawing. Email addresses were collected in this manner so that there would be no link between the survey data and the entry for the drawing. Two drawings were held, at each drawing three winners were selected. Once the data were collected and the drawings were held, the names and e-mail addresses were destroyed.

Statistical Analysis

These data were cleaned and screened for violations of assumptions (normality, linearity, and homoscedasticity) before running the main analyses (Tabachnick & Fidell, 2018). Initially, descriptive and frequency analyses were conducted to determine the basic demographics of the sample and specific information related to participant's athletic conference, academic year, sport played, years in sport, and social networking use.

Mean, standard deviations, and ranges were calculated for the variables of interest. The distribution of scores around the mean was analyzed with tests of skewedness and kurtosis and all assumptions for normality were met. Descriptive statistics, correlations, analysis of variance (ANOVA), and regression analyses were utilized for the current study. Findings are organized and displayed in charts and graphs.

Results

The present study sought to explore the relationships among student-athletes' social networking use, athletic identity, and well-being through the lens of emerging adulthood. Analyses were conducted with the demographic variables and main study variables to determine if the demographic variables of age, gender, and sport were related to social networking use, athletic identity, emerging adulthood, or well-being. Pearson's r was used to examine correlations for continuous variables, analysis of variance (ANOVA) and multivariate analysis of variance (MANOVA) was used to examine group differences. A p-value of .01 was used to determine significance in order to reduce the threat of Type I error.

Demographics

A total of 95 Division I student-athletes participated in the current study, of those 42 (44.7%) participants indicated they identified as male, 53 (55.8%) participants indicated they

identified as female. Participants ages ranged from 18 to 25 and had a mean age of 19.92 (SD =

1.33). In terms of race and ethnicity, 20 (21.1%) identified as Hispanic or Latino or of Spanish

Origin, and 75(78.9%) identified as Not Hispanic or Latino or of Spanish Origin; further, 27

(28.4%) participants identified as Black or African American, 1 (1.1%) identified as Native

Hawaiian or Other Pacific Islander, 62 (65.3%) identified as White, and 5 (5.3%) identified as

Other.

Participants were asked to provide information related to their social networking use. All

of the 95 participants indicated that they were active users of social networking sites, 95 (96.8%)

of respondents indicated that they used social networking sites 5 to 7 days per week, 2 (2.1%)

participants indicated use of 3 – 5 days per week, and 1 (1.1%) participant indicated use of 1 – 3

days per week. Additionally, participants were asked how many times per day they accessed

social networking sites, 2 (2.1%) indicated less than 5 times per day, 25 (26.3%) indicated 6 – 10

times per day, 28 (29.5%) indicated 10 – 15 times per day, 26 (27.4%) indicated 16 -20 times per

day, and 14 (14.7) participants indicated accessing their social networking sites more than 20

times per day. In relation to social networking sites used, 49 (12%) used Facebook, 86 (21.9%)

reported having a Twitter account, 50 (12.7%) had a LinkedIn account, 28 (7.1%) used Pinterest,

86 (21.9%) reported having an Instagram account, and 94 (23.9%) used Snapchat. When asked

about reasons for social networking use, 89 (31.2%) participants indicated that they used social

networking sites to connect with friends and family, 13 (4.6%) to interact with fans, 77 (27%) to

gain information about what is going on in the world, 94 (33%) indicated that social networking

site use was for entertainment, and 12 (4.2%) chose other reason.

In relation to social networking use, participants were asked to respond to items related to

positive and negative content directed towards them as a student-athlete on social networking

sites. Most of the participants, 91 (95.8%) reported experiencing positive content directed at them as a student-athlete, further 24 (25.3%) rated the content as minimally positive, 23 (24.2%) rated it as somewhat positive, and 45 (47.4%) rated it as positive. Conversely, 64 (67.4%) of participants reported experiencing negative content directed towards them as a student-athlete on social networking sites, 10 (10.5%) rated the content as minimally negative, 8 (8.4%) rated it as somewhat negative, 12 (12.6%) rated it as negative, 23 (24.2%) rated it as moderately negative, and 15 (15.8%) rated it as extremely negative. Participants who experienced negative content directed at them as student-athletes were asked to share how they responded to the content and were able to select multiple choices, 52 (48%) reported no response, 11 (10.2%) indicated direct response to the individual, 19 (17.6%) indicated posting subliminal messages on their own social networking sites, 23 (21.3%) talked to others about the negative content, and 3 (2.8%) reported the negative content to an authority figure.

Preliminary Analyses

Preliminary analyses of these data also included an examination of assumptions. Based on the moment coefficient of skewness and kurtosis, most of these data met the standards for statistical assumptions. Ranges between -2.00 and 2.00 for skewness and ranges of -3.00 and 3.00 for kurtosis demonstrate that these data approximated a normal distribution (DeCarlo, 1997; Tabchnick & Fidell, 2013). However, one subscale, the social identity (SI) subscale from the AIMS measure demonstrated some kurtosis (kurtosis = 3.38). For the purpose of this study however, the overall score of the AIMS was used, which met the assumption for kurtosis.

Subscale means, standard deviations, and Cronbach's alphas (see **Table 4**) as well as intercorrelations (see **Table 5**) were explored for the main scales, the SMUIS, AIMS, PWB, SWLS, and the IDEA, Cronbach's alphas for most of the scales ranged from .71 to .91, well

within acceptable limits (.70 to 1.00). One IDEA subscale, Experimentation/Possibilities had an alpha coefficient of .63. The purpose in life subscale of PWB had an Cronbach's alpha coefficient of .67, and environmental mastery had an alpha coefficient of .48. Due to the low alpha coefficient of the environmental mastery subscale of PWB it was not used in further analyses.

The AIMS measures a person's level of athletic identity by having participants rate themselves on a 10-item instrument with responses ranging from "strongly disagree" to "strongly agree" on a 7-point scale, which yields a potential score ranging from 10-70 (Brewer, Van Raalte, & Linder, 1993). These items are summed to produce a single self-evaluation score that represents their athletic identity, higher scores on the AIMS correspond with stronger and more exclusive identification with the athlete role. The results of this study yielded 42 males and 53 females who completed the AIMS. The mean score on the AIMS for males was 59.71 and the mean score for females was 51.26. The mean score for the total 94 respondents was 55.0 with a standard deviation of 9.80. These results indicate that for this sample, males had a higher athletic identity and therefor more association with the athletic role than females. Overall, both males and females, reported moderate levels of athletic identity. To further explore athletic identity for the sample a one-way ANOVA was run to explore levels of athletic identity by participants year in school. The results yielded the following mean scores: freshman = 57.93, sophomore = 58.73, junior = 53.45, senior = 47.94, 5th year = 49.75, and graduate student = 49.5 indicating that as students in this sample matriculate through college through their senior year athletic identity decreased and association with the athletic role weakened.

The IDEA, the instrument on Emerging Adulthood is a 31- item measure with six subscales corresponding to the most prominent features of emerging adulthood: identity

exploration, exploration of possibilities, negativity or instability, other-focused, self-focused, and feeling "in-between" (Reifman, Arnett & Colwell, 2007). Scores on each subscale represents the degree to which individuals identify with each theme that is a characteristic of emerging adulthood. The sixth subscale, "other-focused," which is not part of the original conceptualization of emerging adulthood was developed to represent a counterpoint to self-focus (Reifman et. al, 2007). The "other-focused" subscale represented concerns for others (e.g., "responsibility for others" and commitment to others") with the expectation that individuals who do not fall in the age range of emerging adults would endorse the "other-focused" subscale more so than emerging adults (Reifman et. al, 2007). As participants in this study were all within the age range for emerging adulthood this subscale was not included. To score the scales items within each subscale are averaged, higher scores on the subscales represents higher associations with each characteristic of emerging adulthood. Responses are rated on a 1-4 scale, with possible answers ranging from "strongly disagree" to "strongly agree." For the purpose of this study the sixth subscale "other-focus" was not included as it is not part of the original conceptualization of the theory of emerging adulthood. The five subscales used in this study were experimentation/possibilities, self-focused, identity exploration, negativity/instability, and identity exploration. The results of this study yielded 42 males and 53 females ages 18 -25 who completed the IDEA. The mean scores for males on the IDEA subscales are as follows: experimentation/possibilities = 3.41 (SD = .35), self-focused = 3.40 (SD = .37), identity exploration = 3.30 (SD = .34), negativity/instability = 3.30 (SD = .33), and feeling-in-between = 3.24 (SD = .41). The mean scores for females on the IDEA subscales are as follows: experimentation/possibilities = 3.39 (SD = .38), self-focused = 3.44 (SD = .35), identity exploration = 3.36 (SD = .38), negativity/instability = 3.09 (SD = .44), and feeling-in-between =

3.42 (SD = .49). The mean scores for both males and females on the subscales representing the five dimensions of emerging adulthood indicated a strong association with the process of emerging adulthood for this sample with all scores being above three indicating that they are in the top 25% of association with emerging adulthood. These findings are consistent with a study conducted by Reifman et al. (2007) which measured the differences in all IDEA subscales for emerging adults (18 – 29) which found that emerging adults scored in the top 25% of association with the process of emerging adulthood.

To answer the second research question, Pearson's product-moment correlations were conducted to assess the relationships among the variables of interest in this study SMUIS, AIMS, SWLS, PWB, and the IDEA. Social networking use, as measured by the SMUIS, was found to have only one significant relationship among athletic identity, emerging adulthood, and well-being. There was a statistically significant, moderate negative correlation between social media use and the autonomy subscale of PWB, $r(81) = -.32$, $p < .001$. The results show that for this sample one's social networking use has an impact on one's level of autonomy. Further, when social networking use increases participant's had less confidence in their opinions and were more concerned with how others perceive them.

Athletic identity, as measured by the AIMS, was found to have several correlations among the measures of emerging adulthood and well-being. Concerning emerging adulthood, athletic identity was found to have a statistically significant, small negative correlation with the self-focused subscale of the IDEA $r(81) = -.27$, $p < .001$, meaning those who scored higher in athletic identity spend less time on self-focus. Additionally, athletic identity was found to have a statistically significant, small negative correlation with the identity exploration subscale of the IDEA $r(81) = -.29$, $p < .001$, indicating that those with higher levels of athletic identity spend

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less time exploring one's identity. Lastly, in relation to emerging adulthood, athletic identity was found to have a statistically significant, small positive correlation with the negativity/instability subscale of the IDEA $r(81) = .26$, p < .001. The results show a positive relationship between athletic identity and negativity/instability indicating that those who have higher athletic identity also experience this period as one of instability as there are so many changes. Athletic identity was also found to have several statistically significant positive correlations with measures of well-being. Athletic identity was found to have a moderate positive correlation with the positive relations subscale of PWB, $r(81) = .48$, p < .001. Positive relations can be defined as one's ability to have satisfying relationships with others (Ryff, 1989), thus scores for athletic identity relate to positive relationships with others. Further, a moderate positive correlation was found between athletic identity and the purpose in life subscale of PWB, $r(81) = .45$, p < .001. According to Ryff (1989) purpose in life relates to having life goals and a belief that one's life is meaningful. The findings indicate a positive relationship such that as one's level of athletic identity increases so does one's purpose in life. Finally, a small positive correlation was found between athletic identity and satisfaction with life, $r(81) = .29$, p < .001, indicating that higher levels of athletic identity indicate more satisfaction with life.

Emerging adulthood, as measured by the subscales of the IDEA, and well-being, as measured by the subscales of PWB and SWLS, were found to have several statistically significant correlations. Arnett (2004) defines self-focus as a healthy temporary period that allows for further development of personal identity and focusing on one-self. First, the self-focused subscale of the IDEA was found to have a large negative correlation with the personal growth subscale of PWB, $r(81) = -.54$, p < .001. Personal growth is described as being open to new experiences, and having continued personal growth (Ryff, 1989). The results indicate that

those scoring higher in self-focus are less open to new experiences and tend to act in ways that are familiar to them. Further, self-focus was found to have a moderate negative correlation with the positive relations with others subscale of PWB, $r(81) = -.36$, p < .001. The results show that those who over identity with emerging adulthood as a time of self-focus indicate less need for positive relationships with others. Lastly, self-focus was found to have a small negative correlation with the self-acceptance subscale of PWB, $r(81) = -.27$, p < .001. Self-acceptance indicates a positive attitude towards oneself and one's past life (Ryff, 1989). Results for this sample show that those who view emerging adulthood as a time of self-focus have lower levels of self-acceptance.

The identity exploration subscale of emerging adulthood measures to what extent one feels that emerging adulthood is a time in one's life for finding out who they are (Reifman et al., 2007). Identity exploration was found to have a small negative correlation with positive relations with others subscale of PWB, $r(81) = -.27$, p < .001. The results show that those who view emerging adulthood as a time of identity exploration indicate less need for positive relationships with others.

The experimentation/possibilities subscale of emerging adulthood measures the extent to which individuals feel that emerging adulthood is a time of many possibilities (Reifman et al., 2007). A moderate negative correlation was found between experimentation/possibilities and the personal growth subscale of PWB, $r(81) = -.38$, p < .001. The results indicate that as scores in experimentation/possibilities increase, one's openness to new experiences decreases. This may be unique to student-athletes, as they have an abundance of opportunities, but do not always have the time or ability to explore these opportunities due to the demands of their sport.

Lastly, the negativity/instability subscale of emerging adulthood did not have any significant relationships with the subscales of PWB and SWLS. The negativity/instability subscale of the IDEA measures the extent to which individuals feel that emerging adulthood is a time of unpredictability (Reifman et al., 2007).

To answer the third research question a one-way multivariate analysis of variance (MANOVA) was run to determine the effect of social networking use on student-athletes' well-being and athletic identity. Seven dependent variables were used: autonomy, personal growth, positive relations, purpose in life, self-acceptance, SWLS, and athletic identity. The independent variable was social networking use as assessed by the SMUIS. Scores from the SMUIS were grouped into three categories: low ($n = 9$), moderate ($n = 59$), and high ($n = 27$). The differences between social networking use on the combined dependent variables was statistically significant, $F(14,174) = 3.004$, p < .001; Wilks' Lambda = 0.638; partial eta squared = 0.196. Follow-up ANOVAs showed that the autonomy subscale of PWB score was statistically significantly different for different levels of social networking use, $F(2, 92) = 10.67$, p < .001; partial eta squared = 0.188. For this population, scores on the autonomy subscale of PWB decreased as social networking use increased. The group of low social networking use (M = 35.56, SD = 9.5) had higher autonomy scores than the group of moderate social networking use (M = 24.80, SD = 10.11). In addition, the group of low social networking use (M = 35.56, SD = 9.5) had higher autonomy scores than the group of high social networking use (M = 19.26, SD = 7.04). Tukey post hoc analysis revealed that the mean of autonomy decrease from low to moderate (-10.76, 99% CI [-20.69, -.83], p = .005) and the decrease from low to high (-16.30, 99% CI [-26.97, -5.62], p < .001) were statistically significant, but there was no statistically significant difference between the moderate to high social networking use groups. The results

indicate that participants who used social networking sites more often have a lower sense of autonomy in their thoughts and actions.

To answer the fourth research question three ANOVAs were run to explore group differences in student-athlete social networking use and well-being, based on age, gender, or academic year. First, a one-way ANOVA was conducted to determine if student-athlete social networking use and well-being were different based on age groups. Participants were classified into three age groups: group 1: 18 – 19 (n = 41), group 2: 20 – 21 (n = 45), and group 3: 22 – 25 (n = 9). Seven dependent variables were used: SMUIS, autonomy, personal growth, positive relations, purpose in life, self-acceptance, and SWLS. The independent variable was age. Results indicated that there were no statistically significant differences at the p <.01 level in SMUIS scores for the three age groups: F (2, 92) = 3.22, p = 0.04. In relation to well-being as measured by subscales of PWB and SWLS, one statistically significant difference was detected. The autonomy subscale of PWB was statistically significantly different for the three age groups, F(2, 92) = 5.63, p = 0.005. The effect size, calculated using eta squared, was 0.109, indicating a large effect. Scores on the autonomy subscale of PWB decreased from age group 1(18-19) (M = 27.76, SD = 10.07) to age group 2 (20-21) (M = 22.38, SD = 9.73) to age group 3 (22-25) (M = 17.56, SD = 7.80), in that order. Tukey post hoc analysis revealed that the mean decrease from group 1 to group 2 (5.38, 95% CI [0.37, 10.38] and the decrease from group 1 to group 3 (10.2, 95% CI [1.67, 18.73] were not statistically significant (p = .041), The results indicate that as participants get older their feelings of autonomy, in relation to PWB, decrease.

Next, a one-way ANOVA was performed to investigate gender differences in student-athlete well-being and social networking use. Seven dependent variables were used: SMUIS, PWB scales - autonomy, personal growth, positive relations, purpose in life, self-acceptance, and

SWLS. The independent variable was gender. Results of the ANOVA indicated that there was not a statistically significant finding for social networking use based on gender.

The autonomy subscale of PWB was statistically significantly different for gender, $F(1, 93) = 8.19$, $p = 0.005$. The effect size, calculated using the eta squared, was 0.81, indicating a medium effect. Scores on the autonomy subscale of PWB were higher for females ($M = 26.81$, $SD = 10.52$) than males ($M = 21.0$, $SD = 8.87$). The results indicate that for this sample female student-athletes reported higher levels of autonomy within PWB, meaning that they feel more self-determined, better able to resist social pressures, and evaluate themselves by personal standards (Ryff & Keyes, 1995)

The positive relations subscale of PWB was statistically significantly different for gender, $F(1, 93) = 10.73$, $p < 0.001$. The effect size, calculated using the eta squared, was .104, indicating a small effect. Scores on the positive relations subscale of PWB were higher for females ($M = 19.88$, $SD = 6.93$) than males ($M = 15.3$, $SD = 6.64$). The positive relations subscale of PWB according to Ryff and Keyes (1995) measures how one interprets their relationships with others. Results for this sample indicate that female student-athletes have more satisfying and trusting relationships with others, are empathetic, and understand the give and take of relationships.

The purpose in life subscale of PWB was not statistically significantly different for gender, $F(1, 93) = 4.32$, $p = 0.04$. Additionally, there was not a statistically significant difference for the personal growth subscale of PWB by gender, $F(1, 93) = .147$, $p = 0.70$. Lastly, there was a not statistically significant difference in SWLS for gender, $F(1, 93) = 3.98$, $p = 0.49$. Lastly, a one-way ANOVA was performed to investigate differences in student-athlete well-being and social networking use based on their academic year. Seven dependent variables

were used: SMUIS, autonomy, personal growth, positive relations, purpose in life, self-acceptance, and SWLS. The independent variable was academic year (Freshman, Sophomore, Junior, Senior). Results indicated that there were not statistically significant differences in student-athlete social networking use or well-being based on academic year.

To answer the fifth research question a Pearson's product-moment correlation was conducted to assess the relationships among athletic identity and well-being. Athletic identity was also found to have statistically significant positive correlations with measures of well-being. Athletic identity was found to have a moderate positive correlation was found between athletic identity and the positive relations subscale of PWB, $r(81) = .48$, p < .001. Positive relations can be defined as one's ability to have satisfying relationships with others (Ryff, 1989), thus scores for athletic identity impact one's need for positive relationships with others. Further, a moderate positive correlation was found between athletic identity and the purpose in life subscale of PWB, $r(81) = .45$, p < .001. According to Ryff (1989) purpose in life relates to having life goals and a belief that one's life is meaningful. The findings indicate a positive relationship such that as one's level of athletic identity strengthens so too does one's purpose in life. Finally, a small positive correlation was found between athletic identity and satisfaction with life, $r(81) = .29$, p < .001, indicating that higher levels of athletic identity indicate more satisfaction with life.

Discussion

This study was conducted to examine the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood. Furthermore, this study aimed to investigate differences in social networking use and well-being based on participants age, gender, and years in sport. To answer these questions, a brief demographic questionnaire, the Social Media Use and Integration Scale (SMUIS), the Inventory

of the Dimensions of Emerging Adulthood (IDEA), the Athletic Identity Measurement Scale (AIMS), the scale of Psychological Well-being (PWB), and the Satisfaction with Life Scale (SWLS) were used. Results from this study indicate that males have higher levels of athletic identity than females, and that both males and females reported a strong association with the process of emerging adulthood for this sample. Scores on the autonomy subscale of PWB decreased as social networking use increased. Further, there were no statistically significant differences in social networking use based on participants age, gender, or academic year. When looking at the impact of age on student-athlete well-being the results showed that for this sample scores on the autonomy subscale of PWB decreased as student-athletes got older. In addition, when looking at the impact of gender on student-athlete well-being the results indicate for this sample that females scored higher on the autonomy and positive relations with others subscales. Lastly, athletic identity was found to have a relationship with student-athlete well-being, indicating that one's ability to have satisfying relationships with others and a sense of directedness in life results in a stronger athletic identity.

Implications of the Current Study

The current study has added to the literature regarding NCAA Division I student-athletes. Research investigating the associations among multidimensional identities and the well-being of student-athletes is limited (Yukhymenko-Lescroart, 2014).The findings in the present study provide counselors, athletic department personnel, and other professionals working with student-athletes with valuable information to educated and prepare student-athletes about athletic identity, social networking use, and well-being. The knowledge of the athletic identity, social networking use, and well-being of student-athletes could be very useful for NCAA institutions

because it could help them better develop academic advising, career counseling, and other student service programs to meet the needs of their student-athletes.

Findings from this research study provides evidence that student-athletes strongly identify with the process of emerging adulthood and therefore support personnel and athletes should be educated about this developmental theory. Understanding how student-athletes view themselves in terms of adulthood can help inform programing efforts related to transition to college and life after college such as, mentoring programs and career exploration workshops.

Additionally, findings from this study indicated that there were positive relationships between athletic identity and well-being. Student-athletes should receive education about what athletic identity is, how psychological well-being impacts athletic identity, as well as the possible benefits and consequences related to having a strong athletic identity. Strong identification with athletic identity has been found to result in an increased sense of belonging to the sport or to the team, increased social status among peers, higher global self-esteem, and acquisition of transferable skills such as work ethic, time-management, goal-oriented behavior, discipline, commitment, team-work skills, and leadership qualities (McKnight et al., 2009; Bowker, Gadbois & Cornock, 2003; Horton & Mack, 2000; Ryska, 2002; Brewer et al., 1993). Conversely, over-commitment to an athletic role restricts some student-athletes' identity development and increases an athlete's likelihood of experiencing difficulty navigating sport career or status changes, including career-threatening injuries or the end of athletic career (Ryska, 2002; Murphy, Petipas, & Brewer, 1996). Counselors working with student-athletes may want to explore the concept of well-being and athletic identity with student-athletes in order to better understand how one views themselves and allow student-athletes to explore other aspects of their own identity in order to facilitate a multideminsional self.

Limitations

       One limitation of the current study is its reliance on self-report measures. Survey research by nature is generally subject to various threats to internal validity as there is no experimental control, randomization of groups, or manipulations of the independent variable. Therefore, there is a threat to construct validity as each instrument and the demographic questionnaire are all self-report surveys delivered via the internet. In addition, the collection procedures also created potential limitation. Due to time constraints, the survey was sent during the summer semester during which time most sports are not in season. This could limit the research study in that student-athletes who are not in season may not feel obligated to participate in a research study.

       Furthermore, the length of the survey may have resulted in potential participants choosing not to participate in the study. Though the total amount of time needed to complete the survey was less than 15 minutes, there were several measures included in the survey. The number of questions may have caused potential participants to choose not to take the survey.

       Another limitation of the present study is the lack of racial diversity represented within the study's participants, as a large majority of the participants identified as white (N = 62, 65.3 %). It would have been beneficial to have more participants from various racial and ethnic groups represented in the study to have more diverse inclusion of experiences, so these results may not be applicable to all racial groups.

       Lastly, the inclusion of a nonathletic control group would have proved useful. This would have enabled results between student-athletes and nonathletes to be compared. By including a nonathlete group would have been useful in developing a better understanding of how student-athletes differ from the population of college students.

Future Recommendations for Research

Despite the aforementioned limitations, this study has added to the literature discussing athletic identity, social networking, emerging adulthood, and well-being among Division I student-athletes. Similar research studies should be conducted at a wide variety of institutions across all divisions of the NCAA in order to increase the number of participants with different levels of playing experiences and demographic backgrounds.

Future research should consider investigating the relationships among student-athlete social networking use, athletic identity, emerging adulthood, and well-being longitudinally in order to observe differences in the sample over time. Exploring these relationships over time would help those working with student-athletes better understand the student-athlete experience. By better understanding student-athletes' experiences as they matriculate through college can help inform trainings and interventions to mitigate negative experiences of student-athletes.

The results of this study showed many positive relationships between athletic-identity and well-being. Future research should consider exploring the constructs of well-being athletic identity to determine its usefulness in grouping athletes in order to determine athlete types, similar to the Meyers Briggs personality types. Using levels of athletic identity to determine areas where student-atheltes may need more support or guidance could be beneficial to student-athlete development and provide more prescriptive implications for programming efforts. This would also allow for coaches and teams to utilize the AIMS to assist with managing team dynamics and supporting individual players based on their needs.

Summary

This research study established an understanding of the levels of athletic identity and association with the developmental process of emerging adulthood for Division I student-

athletes. In addition, this study explored the relationships among student-athlete athletic identity, social networking, emerging adulthood, and well-being and determined that there are in facts relationships among the variables. Student-athletes for this sample strongly identify with their athletic identity and are in the top 25% of association with emerging adulthood. Several statistically significant correlations were found among the variables of interest for this study. Scores on the autonomy subscale of PWB decreased as social networking use increased. Further, there were no statistically significant differences in social networking use based on participants age, gender, or academic year. Lastly, student-athlete well-being and athletic identity were found to have a positive relationship, indicating that more positive psychological well-being, specifically more satisfying relationships with others and a sense of directedness in life increases one's athletic identity. These findings can be used by counselors, athletic department personnel, and other professionals working with student-athletes to improve well-being and improve the overall student-athlete experience.

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Appendix A – Recruitment Emails

Dear student-athletes,

My name is Lindsay Portela and I am a doctoral candidate at Auburn University in Counselor Education and Supervision doctoral program. The reason you are receiving this email is because you have been identified by your athletic director and coach as a Division I student-athlete. I am conducting a research study on the relationships among athletic identity, social networking us and well-being. Due to your involvement with athletics I am interested in your experience with social networking as a student-athlete and how it affects your well-being.

While the NCAA and colleges have begun to implement policies regarding social media, little is known about your first-hand experience with social networking and how it impacts your well-being as a student-athlete. In addition, the findings of this study will help individuals evaluate your needs as a student-athlete in the hopes of improving your college experience and well-being.

To participate in the study, you must be 18-years-old and a varsity athlete at a NCAA Division I athletic program. Participation in this study will take about 10 - 20 minutes and involves completion of a single anonymous on-line survey via Qualtrics, a web-based survey took used to conduct survey research. The surveys do not ask for any identifying information about you or your college or university and, thus, is completely anonymous and will remain *confidential*. None of your responses will be shared with any of your coaches, athletic administrators, or anyone from your school. As an investigator, I am only interested in the overall trend of all of the responses and not any one individual's responses. Participation in this study is strictly voluntary, you may choose to drop out of the study at any time. Potential risks of participating in this study are minimal and may include mild discomfort as you are asked to respond to a variety of questions on the surveys. Upon completion of the survey you will have the chance to enter into a drawing for a chance to win one of 6 $50 Visa gift cards.

Participants will not directly benefit form participation in this study, however information obtained through participation in this study may be published in a professional journal or presented at a professional conference and may contribute to a deeper understanding of the relationships among student-athlete social networking use, athletic identity, and well-being.

Thank you in advance for your participation in this study. If you have any questions, please contact me by phone at (954) 470-9563 or by email at lkp0004@auburn.edu. My dissertation chair is Dr. Jill Meyer, and she can be reached at jmm0079@auburn.edu. You may also contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

Sincerely,

Lindsay Portela, M.Ed, ALC, NCC
Doctoral Candidate
(954) 470 – 9563
Lkp0004@auburn.edu

Dear Athletic Director,

My name is Lindsay Portela, and I am a doctoral candidate in the Counselor Education and Supervision doctoral program at Auburn University. I am requesting your assistance with my doctoral dissertation research project titled *The Relationship Between Social Networking and Student-athlete Well-Being*.

The purpose of this quantitative research study is to explore the relationships among student-athlete's social networking use, athletic identity, and well-being through the lens of emerging adulthood to determine if any relationships exist. My experience as a former student-athlete has motivated me to better understand student-athletes' experiences. Using the emerging adulthood framework, the findings will provide implications for counselors, athletic department personnel, and other professionals working with student-athletes to help understand how social networking use may impact student-athletes' well-being and provide practical implications for education and interventions to promote student-athlete well-being in relation to social networking.

The study involves student-athletes completing a single anonymous on-line survey via Qualtrics, a web-based survey took used to conduct survey research. The survey is estimated to take about 10 - 20 minutes to complete. Participation in this study is strictly voluntary, participants may choose to drop out of the study at any time. Potential risks of participating in this study are minimal and may include mild discomfort as participants are asked to respond to a variety of questions on the surveys. Any information obtained in connection with this study will remain *confidential.* Upon completion of the survey participants will have the chance to enter into a drawing for a chance to win one of 6 $50 Visa gift cards. I plan to administer the surveys Summer and Fall of 2019. Data collection and dissemination will be completely anonymous. No identifying information will be collected from individual athletes, and no identifying information will be collected concerning individual educational institutions.

Participants will not directly benefit form participation in this study, however information obtained through participation in this study may be published in a professional journal or presented at a professional conference and may contribute to a deeper understanding of the relationships among student-athlete social networking use, athletic identity, and well-being.

Thank you in advance for your consideration of this project. If you have any questions, please contact me by phone at (954) 470-9563 or by email at lkp0004@auburn.edu. My dissertation chair is Dr. Jill Meyer, and she can be reached at jmm0079@auburn.edu. You may also contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334) 844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

Sincerely,

Lindsay Portela, M.Ed, ALC, NCC
Doctoral Candidate
(954) 470 – 9563
Lkp0004@auburn.edu

Appendix B – Informational Letter

INFORMATIONAL LETTER
for a Research Study entitled
"The Relationship Between Social Networking and Student-athlete Well-Being "

You are invited to participate in a research study. *The research is intended to explore the relationships among athletic-identity, social networking use and well-being through the lens of emerging adulthood. Participating in this study will contribute to research related to student-athlete social networking use and well-being in order to improve the overall experience and well-being of student-athletes*. This study is being conducted by Lindsay Portela under the direction of Dr. Jill Meyer (jmm0079@auburn.edu) is the department of Special Education, Rehabilitation and Counseling at Auburn University. You were selected as a possible participant because you are a student-athlete at an NCAA Division I institution.

What will be involved if you participate? If you decide to participate in this research study, you will be asked to complete an online survey. Your total time commitment will be approximately 10 – 20 minutes.

Are there any risks or discomforts? Potential risks of participating in this study are minimal and may include mild discomfort as you are asked to respond to a variety of questions on the surveys. Participants have the option to discontinue answering the measures at any point if they experience discomfort. All questionnaires and responses are completely anonymous. No identifying information is requested about individuals or their institutions.

Are there any benefits to yourself or others? If you participate in this study, your responses will help us learn more about the relationships among athletic identity, social networking and the messages received on social networking sites on student-athlete subjective well-being.

Will you receive compensation for participating? Upon completion of the survey participants will have the chance to enter into a drawing for a chance to win one of 6 $50 Visa gift cards.
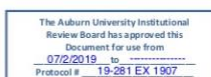
Are there any costs? There are no costs associated with participation in this study.

If you change your mind about participating, you can withdraw at any time during the study. Your participation is completely voluntary.

Your privacy will be protected. Any information obtained in connection with this study will remain *confidential*. Information obtained through your participation may be published in a professional journal or presented at a professional conference.

If you have questions at any time about the study or the procedures, you may contact myself Lindsay Portela at lkp0004@auburn.edu or my research supervisor, Associate Professor Dr. Jill Meyer via email at jmm0079@auburn.edu.

If you have questions about your rights as a research participant, you may contact the Auburn University Office of Research Compliance or the Institutional Review Board by phone (334)-844-5966 or e-mail at IRBadmin@auburn.edu or IRBChair@auburn.edu.

The Auburn University Institutional
Review Board has approved this
Document for use from
07/2/2019   to   ----------------
Protocol #   19-281 EX 1907

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HAVING READ THE INFORMATION PROVIDED, YOU MUST DECIDE IF YOU WANT TO PARTICIPATE IN THIS RESEARCH PROJECT. IF YOU DECIDE TO PARTICIPATE, THE DATA YOU PROVIDE WILL SERVE AS YOUR AGREEMENT TO DO SO. THIS LETTER IS YOURS TO KEEP.

Lindsay Portela, M.Ed, ALC, NCC - Investigator

The Auburn University Institutional Review Board has approved this document for use from _____. Protocol #_____.

> The Auburn University Institutional
> Review Board has approved this
> Document for use from
> __07/2/2019__ to _____
> Protocol # ____19-281 EX 1907____

Appendix C – Demographic Questionnaire

Qualifying Questions

Are you currently enrolled as a student-athlete at a Division I institution?
Yes
No

Do you currently use social networking sites?
Yes
No

Demographic Questions

Age:
17, 18, 19, 20, 21, 22, 23, 24, 25

Academic Year:
Freshman
Sophomore
Junior
Senior
5th year
Graduate Student

Gender:
Male
Female
Prefer to self-describe _____
Prefer not to disclose

Ethnicity:
Hispanic or Latino or Spanish Origin
Not Hispanic or Latino or Spanish Origin

Race:
American Indian or Alaska Native
Asian
Black or African American
Native Hawaiian or Other Pacific Islander
White
Other _____
The following questions are specifically related to athletics.

Sport Related Questions

Please select your athletic conference from the list below (drop down box):
.
Atlantic Coast Conference (ACC)
Big East
Big Sky Conference
Big South Conference
Big Ten
Big 12
Colonial Athletic Conference (CAA)
Conference USA (C-USA)
FBS Independents
FCS Independents
Great West Conference
Ivy League
Mid-American Conference (MAC)
Mid-Eastern Athletic Conference (MEAC)
Missouri Valley Football Conference (MVFC)
Mountain West Conference (MWC)
Northeast Conference (NEC)
Ohio Valley Conference (OVC)
Pacific-12 (Pac-12)
Patriot League
Pioneer Football League (PFL)
Southern Conference (SoCon)
Southeastern Conference (SEC)
Southland Conference
Southwestern Athletic Conference (SWAC)
Sun Belt Conference
Western Athletic Conference (WAC)

Please indicate your sport:

Please indicate how many total years (not just collegiate participation) you have been competing in your sport:
_____

Social Networking Site Usage Questions

Please indicate the reasons for your social networking use (check all that apply):
To connect with friends/family
To interact with fans
To gain information about what is going on in the world
For entertainment
Other _____

Please indicate which social networking sites you use (check all that apply)
Facebook
Twitter
LinkedIn
Pinterest
Instagram
Snapchat
Other _____

On average, how many days per week do you use social networking?
1-3 days
3-5 days
5-7 days

How many times on average do you access social networking sites per day?
less than 5 times
6-10 times
16-15times
16 -20 times
more than 20 times

Have you ever experienced negative content on a social networking site that was directed at you?
Yes
No

If yes, how do you respond to tweets directed at you that are negative or critical? (please select all that apply)
No response
Direct response to the individual who composed the negative content
Post subliminal messages about interaction on your own social networking sites
Talked to others about the negative content
Reported the negative content to an authority figure
Other _____

The Social Media Use Integration Scale (SMUIS)
Jenkins-Guarnieri, Wright, & Johnson (2013)

Please indicate the extent to which you agree or disagree with each statement in relation to your own social networking use.

Strongly Disagree   Strongly Agree
    1   5

1. I prefer to communicate with others mainly through Social Networking Sites.
2. I feel disconnected from friends when I have not logged into Social Networking Sites.
3. Social Networking Sites plays an important role in my social relationships.
4. I would like it if everyone used Social Networking Sites to communicate.
5. I get upset when I can't log on to Social Networking Sites.
6. I enjoy checking my Social Networking accounts.
7. Using Social Networking Sites is part of my everyday routine.
8. I don't like to use Social Networking Sites.*
9. I would be disappointed if I could not use Social Networking Sites at all.
10. I respond to content that others share using Social Networking Sites.

SMUIS Subscales:

Social Integration and Emotional Connection Subscale (SIEC):
#s 1, 2, 3, 4, 5, 9,

Integration into Social Routines Subscale (ISR)
#s 6, 7, 8, 10

The Athletic Identity Measurement Scale
Brewer, Van Raatle, and Linder (1993)

Please indicate the extent to which you agree or disagree with each statement in relation to your own sports participation.

Strongly Disagree   Strongly Agree
         1   7

1. I consider myself an athlete.
2. I have many goals related to sport.
3. Most of my friends are athletes.
4. Sport is the most important part of my life.
5. I spend more time thinking about sport than anything else.
6. I need to participate in sport to feel good about myself.
7. Other people see me mainly as an athlete.
8. I feel bad about myself when I do poorly in sport.
9. Sport is the only important thing in my life.
10. I would be very depressed if I were injured and could not compete in sport.

AIMS Subscales:

Social Identity Subscale (SI): # 1, 2, 3, 7
Exclusivity (EX): # 4, 5, 9
Negative Affectivity (NA): # 8, 10

Appendix F – Ryff's Psychological Well-Being Scale

Ryff's Psychological Well-Being Scales (PWB)
42 Item version

Please indicate your degree of agreement (using a score ranging from 1-7) to the following sentences.

Strongly Disagree   Strongly Agree
1   7

1. I am not afraid to voice my opinions, even when they are in opposition to the opinions of most people.
2. In general, I feel I am in charge of the situation in which I live.
3. I am not interested in activities that will expand my horizons.
4. Most people see me as loving and affectionate.
5. I live life one day at a time and don't really think about the future.
6. When I look at the story of my life, I am pleased with how things have turned out.
7. My decisions are not usually influenced by what everyone else is doing.
8. The demands of everyday life often get me down.
9. I think it is important to have new experiences that challenge how you think about yourself and the world.
10. Maintaining close relationships has been difficult and frustrating for me
11. I have a sense of direction and purpose in life.
12. In general, I feel confident and positive about myself.
13. I tend to worry about what other people think of me.
14. I do not fit very well with the people and the community around me.
15. When I think about it, I haven't really improved much as a person over the years.
16. I often feel lonely because I have few close friends with whom to share my concerns.
17. My daily activities often seem trivial and unimportant to me.
18. I feel like many of the people I know have gotten more out of life than I have.
19. I tend to be influenced by people with strong opinions.
20. I am quite good at managing the many responsibilities of my daily life.
21. I have the sense that I have developed a lot as a person over time.
22. I enjoy personal and mutual conversations with family members or friends.
23. I don't have a good sense of what it is I'm trying to accomplish in life.
24. I like most aspects of my personality.
25. I have confidence in my opinions, even if they are contrary to the general consensus.
26. I often feel overwhelmed by my responsibilities

27. I do not enjoy being in new situations that require me to change my old familiar ways of doing things.
28. People would describe me as a giving person, willing to share my time with others.
29. I enjoy making plans for the future and working to make them a reality.
30. In many ways, I feel disappointed about my achievements in life.
31. It's difficult for me to voice my own opinions on controversial matters.
32. I have difficulty arranging my life in a way that is satisfying to me.
33. For me, life has been a continuous process of learning, changing, and growth.
34. I have not experienced many warm and trusting relationships with others.
35. Some people wander aimlessly through life, but I am not one of them
36. My attitude about myself is probably not as positive as most people feel about themselves.
37. I judge myself by what I think is important, not by the values of what others think is important.
38. I have been able to build a home and a lifestyle for myself that is much to my liking.
39. I gave up trying to make big improvements or changes in my life a long time ago.
40. I know that I can trust my friends, and they know they can trust me.
41. I
42. When I compare myself to friends and acquaintances, it makes me feel good about who I am.

Recode negative phrased items: # 3, 5, 10, 13,14,15,16,17,18,19, 23, 26, 27, 30,31,32, 34, 36, 39, 41. (i.e., if the scored is 7 in one of these items, the adjusted score is 1; if 5, the adjusted score is 2 and so on…)

Add together the final degree of agreement in the 6 dimensions:
    a. Autonomy: items 1,7,13,19,25, 31, 37
    b. Environmental mastery: items 2,8,14,20,26,32,38
    c. Personal Growth: items 3,9,15,21,27,33,39
    d. Positive Relations: items: 4,10,16,22,28,34,40
    e. Purpose in life: items: 5,11,17,23,29,35,41
    f. Self-acceptance: items 6,12,18,24,30,36,42

Appendix G – Satisfaction With Life Scale

Satisfaction With Life Scale (SWLS)
Diener, Emmons, Larsen, & Griffin (1985)

Below are five statements that you may agree or disagree with. 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.

- ☐ 7 - Strongly agree
- ☐ 6 - Agree
- ☐ 5 - Slightly agree
- ☐ 4 - Neither agree nor disagree
- ☐ 3 - Slightly disagree
- ☐ 2 - Disagree
- ☐ 1 - Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

- ▪ 31 - 35 Extremely satisfied
- ▪ 26 - 30 Satisfied
- ▪ 21 - 25 Slightly satisfied
- ▪ 20   Neutral
- ▪ 15 - 19 Slightly dissatisfied
- ▪ 10 - 14 Dissatisfied
- ▪   5 - 9 Extremely dissatisfied

Appendix H – Inventory of the Dimensions of Emerging Adulthood

Inventory of the Dimensions of Emerging Adulthood (IDEA)
Reifman, Arnett, & Colwell (2007)

Please think about this time in your life. When we say 'this time,' we mean what is going on now, plus what has gone on in the last few years, plus what you think your life will be like in the next few years. Think about a 5-year period of time, with right now in the middle. For each question below, mark the box that best describes this time in your life. Be sure to put only one check mark per line.

Responses were measured on the following 4-point Likert-type scale:
1 (*strongly disagree*), 2 (*somewhat disagree*), 3 (*somewhat agree*), and 4 (*strongly agree*).

Is this time a …

1. Time of many possibilities?
2. Time of exploration?
3. Time of confusion?
4. Time of experimentation?
5. Time of personal freedom?
6. Time of feeling restricted?
7. Time of responsibility for yourself?
8. Time of feeling stressed out?
9. Time of instability?
10. Time of optimism?
11. Time of high pressure?
12. Time of finding out who you are?
13. Time of settling down?
14. Time of responsibility for others?
15. Time of independence?
16. Time of open choices?
17. Time of unpredictability?
18. Time of commitment to others?
19. Time of self-sufficiency?
20. Time of many worries?
21. Time of trying new things?
22. Time of focusing on yourself?
23. Time of separating from parents?
24. Time of defining yourself?
25. Time of planning for the future?
26. Time of seeking a sense of meaning?
27. Time of deciding on your own beliefs and values?

28. Time of learning to think for yourself?

29. Time of feeling adult in some ways but not in others?

30. Time of gradually becoming an adult?

31. Time of being not sure whether you have reached full adulthood?

<u>Scoring</u>

<u>Average subscales:</u>
Identity Exploration 12, 23, 24, 25, 26, 27, 28
Experimentation/Possibilities 1, 2, 4, 16, 21
Negativity/Instability 3, 6, 8, 9, 11, 17, 20
Other-Focused 13, 14, 18
Self-Focused 5, 7, 10, 15, 19, 22
Feeling "In-Between" 29, 30, 31

Table 5

Pearson's r Correlation Matrix

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. AIMS Total	1												
2. Autonomy	.110	1											
3. Personal Growth	-.129	.235**	1										
4. Positive Relations	.476**	-.107	.399**	1									
5. Purpose in Life	.452**	.174	.404**	.400**	1								
6. Self-Acceptance	-.088	.323**	.407**	.318**	.438**	1							
7. SWLS Total	.286**	.155	.379**	.551**	.544**	.526**	1						
8. SIMUS Total	.062	-.316**	.066	.065	-.048	-.041	-.057	1					
9. Identity Exploration	-.291**	-.015	-.247	-.267**	-.152	-.150	-.176	-.024	1				
10. Experimentation/ Possibilities	.016	-.144	-.376**	-.096	-.096	-.184	-.137	-.113	.389	1			
11. Negativity/ Instability	.261**	.046	.186	.203	.271	.210	.305	-.123	0.074	.101	1		
12. Self-Focused	-.271**	-.541	-.537**	-.363**	-.179	-.269**	-.187	-.031	.499	.438	-.050	1	
13. Feeling-in-between	.058	.071	-.044	-.060	-.188	.005	-.050	-.081	.288	.229	.196	.149	1

**. Correlation is significant at the 0.01 level

Table 6

Summary of One-Way MANOVA

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	p	Partial Eta Squared
PWB (Autonomy)	SMUIS	1840.47	2	920.23	10.67	.000**	.188
PWB (Personal Growth)	SMUIS	143.46	2	71.73	2.71	.072	.056
PWB (Positive Relations)	SMUIS	36.31	2	18.16	.354	.703	.008
PWB (Purpose In Life)	SMUIS	55.06	2	27.53	.961	.386	.020
PWB (Self-Acceptance)	SMUIS	32.06	2	16.03	.539	.585	.012
SWLS	SMUIS	23.22	2	11.61	.667	.516	.014
AIMS	SMUIS	219.09	2	1.142	1.14	.324	.024

** Results significant at the .01 level.