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Division-I Student-Athletes' Socialization Out of Sports: The Role of Exit Circumstances and Interpersonal Support on Wellness

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DIVISION- I STUDENT-ATHLETES' SOCIALIZATION OUT OF SPORTS: THE ROLE OF EXIT CIRCUMSTANCES AND INTERPERSONAL SUPPORT ON WELLNESS

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ABSTRACT

Student-athletes who compete at the Division-I level typically receive much public exposure and attention during their athletic careers, often leading them to form a high athletic identity. As such, they often need help transitioning away from the athletic competitor role following their retirement. This process, known as socialization out of sport (SOS), is characterized by a loss of purpose and identity for student-athletes and can harm their overall well-being and quality of life. Establishing the empirical associations between SOS's proposed characteristics/features (e.g., the impetus of SOS, educational status, athletic identity, and sense of closure) and former student-athletes' subsequent life experiences is essential. Moreover, social relationships and support may act as a buffer against the uncertainties and stressors of SOS and can aid this transition. To date, SOS literature has exclusively relied on non-generalizable, phenomenological research and remained siloed based on topical interests (e.g., identity). This thesis integrates multiple parallel bodies of SOS scholarship and uses a quantitative approach to examine student-athletes' SOS to provide generalizable findings and comparative insights into which characteristics/features of SOS and sources/types of social support account for aspects of former student-athletes' experiences. Results of this study indicate closure is the paramount characteristic of SOS in determining well-being outcomes; furthermore, personal support from athletic staff was found to positively predict mental health, whereas task support served as a negative predictor of mental health. Policy implications and future research endeavors are also discussed.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (Continued)

Page

CHAPTER ONE

INTRODUCTION

Among its three divisions, the National Collegiate Athletic Association (NCAA) facilitates roughly 520,000 student-athletes each year, including 192,000 student-athletes at the Division-I level (NCAA, 2022). Schools that compete in Division-I athletics typically have larger student bodies, manage substantial athletic budgets, offer the greatest amount of scholarship money to their student-athletes, and receive the most public exposure and attention. As such, D-I athletics are characterized by both high demand and pressure, but also by a greater opportunity to prepare for and access careers in professional athletics. Among Division-I student-athletes, a sub-culture of intense commitment to athletic performance and high levels of identification with their roles as student-athletes are common (Brewer et al., 1993; Rubin & Moses, 2017). Because of these unique commitments, student-athletes often find themselves isolated from the rest of the campus and enmeshed in an athletic-centric culture that can inhibit development in other areas.

However, eventually, all student-athletes transition from their roles as collegiate student-athletes. For those who do not go on to professional athletic careers, this transition can be arduous and requires integrating into new roles, roles commonly unassociated with sports. This process is known as *socialization out of sport* (SOS) among interdisciplinary scholars in sports sociology, psychology, or management. A type of career transition, SOS is often characterized by a loss of identity for student-athletes and can harm their overall well-being and quality of life (Kadlcik & Flemr, 2008; Lavallee et al., 2015; Taylor & Ogilvie, 1994). In fact, Stokowski et al. (2019) found that 57% of former student-athletes have difficulty transitioning out of sport, which is further evidenced in reports of mental health problems (e.g., depression and anxiety) among retired collegiate student-athletes (NCAA, 2023; Weigand et al., 2013). Although preparation (e.g., career

6

planning and the development of multi-faceted identities) can assist in this SOS (Kiefer et al., 2023; Eicher et al., 2020; Stellefson et al. 2020), some student-athletes experience an unforeseen onset of SOS – such as sudden career-ending injuries, losing scholarships, or the canceling of sports offerings – that exacerbate its difficulties (Butt & Molnar, 2009; Gilmore, 2008; Klieber et al., 1987). Other student-athletes, however, intentionally avoid planning or preparing for said transition (Murphy, 1995). Furthermore, regardless of the transition planning period, an NCAA (2023) report notes that concerns about the future are the highest cause of mental health concerns among student-athletes; this indicates a significant need to address the planning period following athletic competition, of which sport communication scholars are well-equipped to address.

Previous literature has been useful in describing the phenomenological experiences of student-athletes within SOS (Beamon, 2012; Fuller, 2014; Jewett et al., 2018; Menke & Germany, 2018; Rubin & Moses, 2017) and informing the development of career transition programs (Eicher et al., 2020; Stellefson et al. 2020). However, there remains a dearth of generalizable evidence about student-athletes' SOS experiences. It is important to establish the empirical associations between the proposed characteristics/features of SOS (e.g., the impetus of SOS, educational status, athletic identity, and sense of closure) and former student-athletes' subsequent life experiences. This information may help tailor the approaches of sporting practitioners to better identify at-risk student-athletes and assist in their transition away from sport.

Beyond the sociological components of SOS, an additional limitation of the literature is the lack of integration and consideration for student-athletes' interpersonal relationships as sources of support during this transition. Weigand et al. (2013) theorized that social support is a central determinant of SOS experiences and the avoidance of mood disorders and depression in former student-athletes. Student-athletes may have access to social support from various sources, including

family members and athletic department support staff (e.g., academic advisors, athletic trainers, sports information directors). By acknowledging the value of social connections and the exchange of social support, this thesis centers communication within SOS in a manner that may offer practical relief for a population enduring a difficult transition that may generate stress, uncertainty, mental health struggles, and a lack of control over their personal and professional lives. Moreover, by considering multiple relationships, scholars can identify which sporting stakeholders may best assist student-athletes in their SOS. Communication scholars are inherently well-suited to address these voids in scholarship. As such, the purpose of this thesis is to examine former Division-I student-athletes' reports of SOS, with a specific focus on generalizing the roles that the characteristics/features of SOS and social relationships with others have in determining their current wellness.

Review of Literature

The following review of literature centers around three areas of scholarship pertinent to the objectives of this thesis: (a) socialization out of sport, (b) student-athlete wellness, and (c) sources of social support.

Sport Socialization

Sport Socialization Processes. Broadly, *socialization* is an umbrella term that refers to various processes by which individuals are prepared for (i.e., socialized) membership into various roles and groups (Feldman, 1976, 1981). Since the mid 20th century, socialization processes have been extensively studied, theorized, and modeled by scholars in various social scientific fields, including sociology, anthropology, psychology, education, and communication (Cooley, 1998; Gilligan, 1977; Mead, 1963; Piaget, 1979). Traditionally, however, the most extensive work is rooted in sociology (Mead, 1963; White, 1977). The socialization framework has been applied to

countless roles and contexts, ranging from familial, educational, societal, political, organizational, and even sporting. The application of socialization to sport is appropriate, as sport offers a vast array of socialization opportunities (e.g., roles, groups, cultures, and contexts) and derives its meaning from the interactions between sporting stakeholders within the sporting process (Coakley, 1993; Donnelly, 2000; McCormick & Chalip, 1988; McPherson, 1981).

To date, four sport socialization processes have been identified within scholarship: (a) socialization into sport, (b) socialization via/through sport, (c) socialization into sport teams, and (d) socialization out of sport. Historically, *socialization into sport* has received the greatest scholarly consideration (Coakley, 1993; Greendorfer, 1987; Spreitzer et al., 1976). This process focuses on how individuals become involved in sport, maintain participation, and learn their athletic roles throughout their careers. Interdisciplinary scholars have identified the roles of various demographic features (e.g., athlete sex, birth order, location, race, ethnicity, and familial composition) in the selection and continuation of sports participation (Coakley, 1993; Coakley & White, 1992). Communication scholars have contributed to these efforts by identifying the means through which sporting stakeholders (e.g., parents, coaches, and teammates) encourage sport participation, define what it means to be an athlete, and assist in adopting sporting roles (Kassing & Pappas, 2007; Starcher, 2015; Turman, 2007).

Socialization via /through sport – the second most examined socialization process – describes how athletes learn and adjust to social norms via their sporting interactions (Coakley, 1993). Put differently, this process considers how sport affects athletes' non-sporting lives (for better or worse) through transmitting societal attitudes, norms, and beliefs, as well as refining life skills and modes of behavior. Bloom & Smith (1996) describe sports participation as a laboratory for the human experience and learning about competition, teamwork, cooperation, and rule-

following. It is through these interactions that social norms become learned and implemented in larger social structures among the individuals participating in sport (McCormick & Chalip, 1988). Whether operating from a critical (i.e., as in the umbrella concept used by Grano [2017]) or functionalist perspective, scholars agree that sports transmit cultural values and norms. Communication scholars have contributed to research about this process through considering messages that position sport as a source of life skills, such as education, teamwork, hard work, and sportsmanship (Cranmer & Myers, 2017; Kassing & Barber, 2007; Kassing & Pappas, 2007; Rey et al., 2022; Starcher, 2015).

Socializing into sports teams is the newest process to be considered by scholars and relies on organizational and group frameworks that narrow in on experiences within specific teams. This process considers how athletes learn about and adjust to the expectations and realities of membership on a team, including tasks, roles, and team dynamics. Interdisciplinary scholars have largely focused on the assignment and assumption of sporting roles, including the congruence of role expectations between incoming athletes and established team leaders, and the balancing expectations for conformity with individuality among the group (Benson et al., 2015; Cope et al., 2011; Kim et al., 2018). Others consider the social dynamics and loyalties formed by athletes (James, 2001). Communication scholars have contributed to these efforts by identifying the sources and types of information that aid athletes in learning and fulfilling the requirements of team membership, such as aspects of organizational knowledge, recruiting experiences, and the exchanges of communicative resources (Cranmer, 2018; Cranmer & Myers, 2017; Posteher, 2019).

Finally, *socialization out of sport* (SOS), which historically has been understudied, involves a complex process centering on the transition away from the role of athlete. This process is often characterized by changes and management of identity, shifts in personal priorities, alterations to

social networks, decreases in access to support services, and for some athletes, the aging process (Coakley, 1993). SOS is often gradual, and involves a slow divestment and decommitment from the athlete role, including while still competing (Brown, 1985). This process – the focus of this thesis – will be reviewed in depth below. In the communication discipline, SOS has been largely considered for its implications on others, including the entrance of a new teammate or the metamorphosis of an existing member into a new role (Fontana et al., 2021). Additionally, Starcher (2015) indicated that the exchanges between fathers and young athletes within youth and adolescent sport settings may be influential for relational quality well after sports participation has concluded. Again, this process is viewed dynamically, as interactions are constant and changing as children learn and grow alongside their families and other close social contacts after withdrawing from sport.

Terminology. Given the scope and depth of sport socialization research (i.e., a consideration of multiple disciplines for over half a century), it is unsurprising that multiple terms and concepts have been utilized to address SOS – whether holistically or components of it. This thesis adopts the phrase *socialization out of sport* because it best captures the holistic process of student-athletes' social adjustment after leaving sports and their subsequent wellness. However, it is important to establish an awareness and differentiate between related terminology that can be found across sports literature.

In sport psychology literature, SOS is often discussed as a *career transition* (Park et al., 2013; Pummell et al., 2018). The career transition literature is deeply rooted in socialization concepts and principles, as such transitions are defined by stress, uncertainty, and require the learning of new tasks, roles, and group norms. However, SOS is only one type of career transition, and others include entering new levels of athletics (e.g., travel, collegiate, or professional sports) or specializing in a specific sport (Aarresola et al., 2017; Coakley, 1993; Kenyon & McPhearson,

1973). Therefore, the term transition can be applied to SOS, but not all scholarship on career transitions is applicable or appropriate for addressing student-athletes' experiences with leaving sports or the student-athlete role. To date, communication scholars have utilized the term *exit* – a specific stage of Jablin's (1987, 2001) Model of Organizational Assimilation – when addressing the process of leaving and adjusting to life following a withdrawal from sport (Fontana et al., 2021). As suggested by the term, exit prioritizes the nature of the departure (e.g., voluntary/involuntary, planned/unplanned) of student-athletes, and focuses heavily on the immediate implications that follow from the loss of membership, including for the remaining team and its members.

Finally, some terms that focus on athletes as they transition from sport and offer insights into subsequent well-being are *retirement* and *rebirth* (Blinde & Greendorfer, 1985; Coakley, 1983). Traditionally, the term retirement has been used heavily in SOS literature to describe the process of leaving sport or withdrawing from the athlete role. While there are some similarities between SOS and occupational retirement (e.g., loss of status, identity, or purpose) (Ball, 1976), the term features connotations that are inaccurate and inappropriate for the athletic context. For instance, there are various differentiations that can be made: (a) traditional retirement is accompanied by the progression of the aging process but most athletes retire relatively young in terms of life expectancy and (b) retirement denotes a ceasing of performing formalized roles as part of membership in any organization whereas most athletes go on to assume other roles and second careers (whether in athletics or other industries). As such, for some athletes the term rebirth has been forwarded as a means of capturing the relief, development, and flourishing that can follow ceasing athletic participation (Coakley, 1983). This process often leads to involvement in other roles within sport or a newfound interest in hobbies and activities outside of athletics. However, given the term rebirth captures a specific, positive experience, it may not be representative of all

12

SOS experiences.

Unlike the other concepts discussed above, the SOS framework asserts the event of leaving sport is not a terminal event but a lengthy process that extends well beyond the immediate sporting context (Brown, 1985; Coakley, 1993; Greendorfer & Blinde, 1985). Moreover, SOS maintains its focus on the departing athletes and does not yield valanced outcomes that only apply to some athletes (e.g., rebirth). As such, SOS is the term that will be principally used in this thesis but the other terms may be references when appropriate.

Socialization Out of Sport Process & Outcomes. Historically, SOS was popularized as a research topic in the 1970s and 1980s – later than socialization into sport, into sport teams, and via sport. The delayed proliferation of this literature is attributable to a substantial increase in attrition in participation within specific sports among youth and adolescents at the time. Attrition was brought on by numerous factors: (a) proliferation of sports offerings, (b) the increase in specialization in single sports, (c) a decline in birth rates, and (d) changes in youth sporting cultures that encouraged withdrawal (e.g., professionalization). In concern to the latter point, research has associated feelings of alienation and exploitation, as well as other negative athletic experiences (e.g., parental pressure), to athletes to SOS (Coakley, 1983; Martens, 1978). This historical context provided the milieu that encouraged academic research on the termination of athletic careers with goals of understanding and preventing withdrawals from sport (Coakley, 1983). In time, the process would be extended to better facilitate and ease athletes' transitions away from the athlete role. The importance of this body of literature is evident in its ability to explain the completion of the sporting experience for athletes and their subsequent experiences.

Previous studies have documented the processes by which SOS unfolds. Much of this work has been conducted outside of the American university context, especially with athletes in Australia

and Canada (Brown, 1985; Grove et al., 1997; Lally, 2007; Torregrosa et al., 2015). Additionally, some research has also been conducted on transitioning university-level student-athletes (Beamon, 2012; Fuller, 2014; Jewett et al., 2018; Menke & Germany, 2018; Rubin & Moses, 2017). This host of research has indicated SOS is not often triggered by any single factor or event, but rather a host of gradual experiences. Various factors inform the decision to cease participation, including plans to graduate, exhaustion of eligibility, loss of interest in competition, conflict with coaches or teammates, or even forced removal (Craike et al., 2009; Fraser-Thomas et al., 2008; West & Strand, 2016; Witt & Dangi, 2018). Collegiate student-athletes' SOS is unique for elite athletics, in that the role of student-athlete within team membership is temporary and – barring unforeseen circumstances – has a date associated with a planned exit (i.e., the exhaustion of eligibility or graduation). However, injuries, decreases in play time, or loss of scholarship may also contribute to these decisions (Fontana et al., 2021).

However, SOS is not merely about a cognitive decision-making process that considers sporting experiences, but includes a psychological shift in identity. Brown (1985) collected data from 404 current and former female swimmers in Ontario, Canada and concluded that withdrawal from competitive sports is a gradual process. During this process, swimmers diminished the importance of their athletic identity and fostered other identities (e.g., students, sons/daughters, and budding professionals), prior to officially ceasing their participation. Shifts in identity do not always mandate athletes' development in non-sporting contexts. Greendorfer and Blinde (1985) surveyed former student-athletes at a large American university and found that the athletic component of identity can be shifted into other facets of athletics, whether this be as a coach, support staff member, or some other stakeholder position within sport (e.g., media member). Prior to cessation of competition, it is important for student-athletes to form non-athlete identities to

better facilitate and ease SOS. Lack of identity outside of the role of student-athlete can significantly burden and lengthen SOS, making it more difficult for student-athletes to adjust to their new ways of living (Fuller, 2014; Grove et al., 1997; Rohrs-Cordes & Paule-Koba, 2018; Webb et al., 1998).

The ongoing SOS process also associates athletes' identities and transitions away from the role of athlete with their broader well-being, including following their departures from athletics. Well-being can be an umbrella term for various interrelated concepts, including spanning emotional, psychological, and social health. This thesis focuses on two specific indicators of former student-athlete well-being that have been considered in previous SOS research: generalized assessments of life satisfaction (Kleiber et al., 1987) and mental health outcomes (Holding et al., 2020; Stephan, 2003; Weigand et al., 2013). These two indicators capture the vast scope/range of outcomes which recently retired student-athletes encounter in their SOS.

Life satisfaction is the holistic, cognitive evaluation of one's life (Shin & Johnson, 1978). Generally speaking, positive life satisfaction is associated with several desirable experiences, including more functional relationships and occupational success (Barger et al., 2009; Erdogan et al., 2012; Pavot & Diener, 2008). Scholarship has demonstrated the potential of athletic retirement to influence life satisfaction, including in positive (Sinclair & Orlick, 1993; Stankovich et al., 2011; Stephan, 2003) and negative ways (Stephan, 2003; Taylor & Oglivie, 1994). Consideration of this variable offers insight into former student-athletes' self-reflections and evaluations of whether their holistic lived experiences after ceasing collegiate athletics are meeting their expectations and goals. *Mental health* is another consideration within SOS. While mental health spans a host of concepts and disorders that range across emotional, psychological, and social well-being, the NCAA's efforts (e.g., *Student-Athlete Well-Being Study*) have been particularly focused on increasingly and

historical rates of anxiety and depression among student-athletes (Johnson, 2022). *Anxiety* encompasses worries and fears that impede the ability to function and are triggered by threats or uncertainty, whereas *depression* affects feelings and manifests in sadness, loneliness, and loss of interest (Stock & Levine, 2016). In a systematic literature review of 126 SOS studies, Park et al. (2013) identified potential concerns regarding athletes' self-perceptions and psychological health in the wake of their withdrawal from sports. In particular, studies have recognized shifts in athletes' sense of self-worth (Missler, 1996; Newell, 2005; Stephan et al., 2003) are associated with the quality of their SOS experiences and transition. The transition out of collegiate athletics can often be accompanied by a sense of identity loss, fear, and isolation for many athletes (Bopp et al., 2021; Bjornsen-Ramig et al., 2020; Murphy et al., 1995). These experiences can be triggers for anxiety or depression (Jewett et. al, 2021; Kerr & Dacyshyn, 2000; Rohrs-Cordes & Paule-Koba, 2018; Schwenk et al., 2007; Weigand et al., 2013). Furthermore, Shander and Petrie (2021) found that athletes' transitions from sport (whether viewed as positive or negative) have lasting effects on one's psychological well-being and can serve as an indicator of the relative ease or difficulty of the transition.

The academic literature demonstrates that SOS can be an arduous process that unfolds over time and entwines the consideration of sporting environments and identity development. Its relevance for former athletes, however, is underscored by its continual impact on various aspects of their lives. However, the literature also documents that the valence of SOS outcomes can be positive or negative. Given these experiences vary and are not inherently defined by sports participation, additional factors must be considered in the determination of former athletes' well-being. Various potential explanations rest within the specific, contextual characteristics or features of athletes' SOS. Regarding characteristics and features that affect SOS, the nature of one's SOS

can determine the well-being of an individual athlete.

Characteristics/Features of Socialization Out of Sport. The nature of SOS can significantly affect the difficulty of SOS and the outcomes which follow, including an athlete's sense of closure, athletic identity, and educational components of utility and autonomy. Ideally, collegiate athletics offers a scenario of *planned exit*, which refers to membership having a pre-established termination date (e.g., eligibility or graduation for student-athletes) (Davis & Myers, 2012). While planned exits would seemingly offer better opportunity to prepare for SOS, Davis and Myers (2012) documented some hesitations and anxieties with such transitions. Planned exits are common in a range of professions and roles, such as political offices, corporate and other government roles, religious missionaries, airline pilots, police officers, and of course, collegiate athletics. Fontana et al. (2021), however, highlighted that student-athletes experience unplanned exits with regularity and underscored the importance of planning and volition in a student-athletes' exit from their teams. The initiation of student-athletes' SOS may be planned or unplanned. Planned exits include completion of competition due to graduation or the exhausting of eligibility, which serves as a revolving cycle for teams. Unplanned exit frequently refers to the quitting, unexpected transfer, or removal of an individual from athletic competition (Fontana et al., 2021). Additionally, exits may be voluntary (e.g., graduation, transfer, or quitting) or involuntary (e.g., injury or removal).

Given these considerations, SOS could be especially difficult to navigate due when initiated by unplanned and involuntary exits that offer limited *closure*, whereas control over exits may allow for greater preparedness to move into new roles (Blinde & Greendorfer, 1983). Previous literature has established that the SOS process is gradual and requires a period of adjustment to navigate the transition away from sport and into new social and personal identities (Brown, 1985; Coakley,

1993; Lally, 2007). Previous studies have established that athletes who were forced to retire experienced higher levels of negative emotions and a fear of social death, which refers to a loss of social identity and social connectedness (Blinde & Stratta, 1992; Fortunato & Marchant; 1999; Rohrs-Cordes &Paule-Koba, 2018). Conversely, athletes who demonstrated a greater degree of control over their lives during retirement reported greater life satisfaction, a more positive outlook on their future, and greater levels of self-esteem (Webb et al., 1998). The lack of autonomy and closure over the transition process has been correlated with negative emotions (e.g., loss, isolation, & fear) or uncertainty among transitioning athletes (Kane, 1991; Kerr & Dacyshyn, 2000). Among collegiate student-athletes specifically, higher levels of control over one's life post-transition indicated greater levels of satisfaction and positivity surrounding the future (Webb et al., 1998). Likewise, we contend that control over the nature of the exit itself should offer benefits in SOS.

Subjective evaluation of one's athletic career is one lesser studied element of SOS, but closure with regard to one's past accomplishments greatly shapes one's transition away from sport. Athletes who complete participation with a sense of satisfaction and fulfilling their potential experienced less difficult retirements and more enjoyment of their post-sports life (Werthner & Orlick, 1986). Additionally, collegiate student-athletes who showed more control over their lives had a greater sense of self-esteem, higher life satisfaction, and possessed more positive views on the future (Webb et al., 1998). However, a lack of closure can also be self-induced because elite-level athletes often demonstrate a degree of resistance planning for their lives post-retirement due to strong identification with the role of athletic competitor and a failure to explore other roles (Murphy, 1995). In these instances, athletes who neglect planning for the future who are transitioning to non-athlete roles may struggle following their retirement, as planning for retirement is one of the most effective strategies in aiding with transition (Wylleman et al., 1993).

One specific determinant of SOS that has garnered extensive attention due to the unplanned and involuntary nature of SOS is *career ending injury*. Career ending injuries lead to involuntary and unplanned retirements, and as such, those who experience them lack a significant amount of closure over their exit. Previous research has found that sudden, career-ending injuries to be traumatic and unique life events due to the stark loss of identity and, in some cases, a lack of a support system in easing the transition (Rohrs-Cordes & Paule-Koba, 2018). Student-athletes who sustained a career ending injury before completing their eligibility showed significantly lower life satisfaction than peers who completed their careers (Kleiber et al., 1987). It has also been found that individuals who have a career-ending injury have a greater difficulty adjusting to post-sport life (Stout, 2018; Werthner & Orlick, 1986). Those with lingering injuries and other physical challenges have had greater difficulty adjusting to their new lifestyle due to these lingering pains and challenges and therefore took longer to adjust to this new way of life without sporting related activities (Gilmore, 2008; Werthner & Orlick, 1986). Based on SOS literature, the following hypotheses are proposed:

H1: Student-athletes who have closure (i.e., ability to engage in goal adjustment and satisfaction with sporting success) will have higher well-being outcomes during their SOS.

H2: Student-athletes whose careers end in injury will have lower well-being outcomes during their SOS.

Additionally, the intrapersonal factor of *athletic identity* can greatly affect their transition out of athletics and the SOS process. Athletic identity is defined as one's sense of self which develops through the performance of the role of athlete and competitor. It is accompanied by a high tendency to foreclose one's identity to others and further explore the roles of athlete and athletic

competitor closely (Brewer et al., 2000). Numerous studies have correlated athletic identity and aspects of career transition, as this identity can exacerbate difficulties of accepting transition (Kleiber & Brock, 1992) or inspire neglecting to plan for non-athlete roles (Murphy et al.1995). As a consequence, a strong athletic identity results in longer periods of adjustment to life post-sport (Grove et al., 1997; Warriner & Lavalle, 2008) and the loss of self-esteem (Lally, 2007). For those with high levels of athletic identity, transitioning out of an athlete role can lead to significant mental health challenges due to feelings of isolation and loss of purpose (Bopp et al., 2021; Jewett et al., 2018). For example, collegiate student-athletes who are more strongly identified with their athletic commitments report greater reductions in social support, mixed moods, depression, and anxiety after ceasing sports participation (Jewett et al., 2018). In contrast, former elite athletes who had less attachment to their sporting roles report greater levels of well-being post-retirement (Erpič et al., 2004; Holding et al., 2020). As such, the following hypothesis is forwarded:

H3:   Student-athletes who had higher levels of athletic identity will have lower

well-being outcomes during their SOS.

A final consideration is student-athletes' *educational* experiences. SOS can be more manageable when student-athletes' educational experiences prepare them to assume new and meaningful roles. While involvement in competitive sports is not a guarantee, college athletics offers opportunities for upward social or economic mobility that extend beyond professional athletics. For example, collegiate student-athletes from families of low socioeconomic status will almost always surpass their parents' socioeconomic status due to higher educational attainment (Henderson et al., 2006). Moreover, Henderson et al. (2006) also found that six years post college graduation, former student-athletes working in business, military, or manual labor occupations were better off financially compared to their non-athletic counterparts. Research also indicates that

20

educational status has a significant effect on the occurrence of occupational difficulties, which can refer to problems with finding a job, financial difficulties, difficulties with adaptation to the requirements of occupation, and lack of professional knowledge (Erpič et al., 2004). Former student-athletes who obtained a university degree reported the lowest levels of difficulties with these problems (Chow, 2001; Erpič et al., 2004; Koukouris, 1994). As such, these educational and prospective professional achievements are relevant to SOS and easing the transition beyond athlete roles.

The benefits of education are often attributed to the achievement of college graduation, which influences both short and long-term adjustment and subsequent life outcomes following ceasing sports participation (Williams, 1991). According to the NCAA (2016), the overall Graduation Success Rate for student-athletes was 86%, which compares favorably to 63% for the general population of students in the United States. Low educational attainment can, in some cases, lead to vocational confusion and difficulties during the transition process itself (Marthinus, 2007; Stronach & Adair, 2010). However, critics of the educational benefits of collegiate athletics argue student-athletes are guided by academic advisors and staff to prioritize majors with workable schedules and manageable academic demands. Curriculum selection can play a paramount role in one's success following graduation, and this is especially true among student-athletes. Many student-athletes can be involuntarily placed into unique degree programs which can unfavorably skew their success following SOS (Foster et al., 2017; Schneider et al., 2010). These educational programs student-athletes are funneled into might have little real-world utility, raising yet another concern. Following one's retirement from sport, an uncommon degree or plan of study might lead to one struggling to utilize their degree or engage in meaningful work. Further, these same critics suggest academic support through the form of limited autonomy in degree selection and

exploration, which often leads student-athletes to graduation, can hinder intellectual development and autonomy – stunting their long-term development. The following hypothesis and research questions are offered:

H4: Student-athletes who had autonomy in their degree selection and find their degree useful will have higher well-being outcomes during their SOS.

Additionally, it would be useful for sport practitioners, athletes, and their networks to understand which SOS characteristics and features are most salient in shaping student-athletes' subsequent experiences (i.e. life satisfaction and mental health). Upon determining which characteristics of SOS are most impactful and for which aspects of former student-athletes' wellbeing, practitioners may tailor support programs and interventions to better equip them throughout SOS. To date, scholarship has principally utilized phenomenological approaches and interview-based research to identify the potential impacts of SOS on athletes (Beamon, 2012; Fuller, 2014; Jewett et al., 2018; Menke & Germany, 2018; Rubin & Moses, 2017), which lack generalizability. A small fraction of research has engaged in quantitative examinations of the associations between a single characteristic or feature of SOS (e.g., career-ending injury, athletic identity) and subsequent experiences (Erpič et al., 2004; Holding et al., 2020; Kleiber et al., 1987; Weigand et al., 2013), which lack comparative insights. Given the complex nature and wide scope of SOS-related experiences and outcomes, empirical investigations into such issues are greatly needed to obtain generalizable insight which can be used to best equip student-athletes for success following SOS. Thus, the following research question is forwarded:

RQ1: Which characteristics/features will best account for student-athletes' well-being outcomes during their SOS?

Student-Athletes' Received Social Support

As mentioned above, SOS (like other career transitions throughout an athlete's life) can be difficult and is characterized by periods of uncertainty and stress. Saks and Gruman (2012) introduced socialization resources theory to explain how social relationships can present a means of offsetting the difficulties brought about by socialization-related transitions. They offered that the provision of *socialization resources* (e.g., feedback, information, mentoring, and informal gatherings) aid in the transition process and assumption of new roles, as such resources offset uncertainty and stress. To date, this framework has been utilized and demonstrated to benefit student-athletes' transitions into collegiate athletics, including throughout anticipatory socialization, entry, and metamorphosis stages (Cranmer, 2017; Cranmer, 2018). It stands to reason that if such resources aid in the assumption of sport roles, they may also assist in the relinquishing of those roles. Another common socialization resource is social support (Saks & Gruman, 2012), which has also been considered as a determinant of various student-athlete experiences (Berg & Warner, 2019; Cranmer, 2016; Cranmer & Sollitto, 2015; Rees & Hardy, 2000).

Social support is an umbrella term used to describe and refer to several related yet conceptually distinct social phenomena and processes which center around the reception of care, assistance, and the availability of a sound network (Goldsmith, 2004). At its most basic level, social support connects human relationships with wellbeing. Within this umbrella term, there are a variety of understandings of social support, including social networks, enacted, available, and received support. The focus of this thesis is *received support*, which refers to the recognition of another's efforts to do or say something helpful (Albrecht & Adelman, 1987). In other words, it may be understood as the psychological awareness of others' communicative efforts. While this particular type of support may fail to encompass the communicative exchanges of support (i.e., *enacted*

support) or the possibility that efforts to offer support may go unrecognized (i.e., *invisible support*), Albrecht and Adelman (1987) argued that, "the support that counts is the behavior perceived by the subject as supportive'' (p. 68). Put differently, the benefits of social support are partially dependent upon the conscientious processing and recognition of efforts as helpful (Bodie & Burleson, 2008). Broadly, social support plays a key role in the workings and basic functioning of various social groups, in addition to providing prevention and reduction of various health and social problems. Past research has linked social support with increased coping with various illnesses (e.g., chronic disease, injury, mental illness), longer lifespan, and increased mental health outcomes within the broader population (Albrecht & Goldsmith, 2003; Berkman, 1985; Furukawa et al.,1998; Harandi, 2017; Hefner & Eisenberg, 2009). In the presence of stress, adverse physical and mental health effects can be combated and buffered with social support. In fact, according to Goldsmith (2004), the strongest effects of social support are best observed among individuals experiencing high levels of stress. Within sport research, received support has been associated with a host of athlete experiences ranging from greater cohesion with teammates (Westre & Weiss, 1991), faster recovery rates after injuries (Rees et al., 2010), and better athletic performance (Fogaca, 2021). Specific to sports communication, received social support has been associated with the development of athletes' relationships with other sporting stakeholders (e.g., coaches) and their satisfaction with sporting environments (Cranmer, 2016; Cranmer & Sollitto, 2015). The amount of variance (e.g., 46-69%) that social support explains in athletes' subjective evaluations of relationships with others and sporting environments underscores its salience and potential impact on SOS.

In addition to different conceptualizations of social support (cf., enacted and received support), social support can serve different functions that constitute subtypes of social support. For example, sport literature consistently considers four types of social support: emotional, esteem,

informational, and tangible support (Cranmer & Sollitto, 2015; Cutrona & Russell, 1990; Rees & Hardy, 2000; McLaren & High, 2019; Robinson et al., 2019). *Emotional Support* is "the ability to turn to others for comfort and security during times of stress, leading the person to feel that he or she is cared for by others" (Cutrona & Russell, 1990, p. 322), and often manifests through communication of concern, empathy, and efforts to make athletes feel understood (Cahn & Frey, 1989; Cranmer et al., 2017). This support aids student-athletes in navigating the stress and uncertainty which is characteristic and inevitable within the collegiate sporting experience. Student-athletes frequently receive emotional support from athletic staff when recovering from injuries (Rees & Hardy, 2000; Rees et al., 2010) and from coaches as a mechanism of increasing well-being and performance potential (Cranmer et al., 2017). *Esteem Support* gives individual positive feedback on his or her skills and abilities, placing an emphasis on their capabilities, skills, and abilities to accomplish the tasks in question (Cutrona & Russell, 1990). Esteem support towards athletes is often accomplished through praise, recognition of past success, comparisons to opponents, or references to shared commitments with teammates (Cranmer et al., 2017). *Informational Support* provides "... advice or guidance concerning possible solutions to a problem" (p. 322), and commonly takes the form of directives, instruction, and feedback within the athletic context (Cranmer et al., 2017). Finally, *Tangible Support* gives an individual assistance via providing resources or services that assist in coping or resolve a stressful task at hand (Cutrona & Russell, 1990). Tangible support within athletics may take the forms of transportation, equipment, finances, or offering access to resources (e.g., health professionals).

While each dimension of social support can be essential in offsetting the difficulties of athletics, sporting literature consistently highlights that the reception of emotional and esteem support are most important in shaping athletes' experiences, including serving as the greatest

predictors of their health (Robinson et al., 2017). Likewise, Cranmer (2016) argued emotional and esteem support are uniquely predictive of athletes' positive perceptions of Leader-Member Exchange (LMX) with their coaches. Subsequently, emotional and esteem support lead to better holistic evaluations of sporting experiences through those relational assessments (Cranmer & Sollitto, 2015). Among injured athletes, received emotional and esteem support are found to have significant main effects in the buffering of various feelings, including restlessness, isolation, and feeling cheated (Mitchell et al., 2014). Rees and Hardy (2000) also indicated the unique utility of emotional and esteem support; emotional support was useful in specifically offsetting issues common to athletes such as help planning for the future, general pressure stemming from sporting competition, and injuries. Esteem support aided in offsetting feelings of nervousness and doubt, recovering from injuries, fitness concerns, and pulling oneself out of a slump.

Literature also recognizes that support can come from a host of sources and sporting stakeholders, including athletic staff (e.g., athletic trainers, academic advisors, or student-athlete development staff) (Barefield et al., 1997; Berg & Warner, 2019) and families (Boneau et al., 2020; Reis et al., 2009). Among the various examinations which identify and empirically examine the stakeholders from which athletes receive social support, this body of research fails to consider support from multiple sources, despite calls for such considerations (Cranmer, 2018). Comparatively analyzing the multiple sources of social support which student-athletes receive is essential in determining the individuals which can best help to ease the stress and uncertainty around SOS, including for specific concerns and aspects of former student-athletes' well-being.

Regarding *athletic staff,* academic support staff create environments which foster success for student-athletes both during and after athletic competition (Berg & Warner, 2020; Eicher et al., 2020; Knight et al., 2018). Additionally, both student and full-time athletic training and strength

and condition staff members play a leading role in the maintenance and rehabilitation of student athletes while they are competing (Barefield & McCallister, 1997; Rees & Hardy, 2000; Rees et al., 2010); when rehabilitating, social support from these staff members has served as a predictor of offsetting anxiety and depression symptoms (Yang et al., 2014). In these instances, social support served as a buffer for the stress and anxiety caused by injury, and in the presence of social support, athletes were 87% less likely to report any symptoms of depression and anxiety following their return-to-play. These individuals serve an essential role in recognizing athletes' needs, anticipating their problems, minimizing any potential barriers, and valuing their education. These assistance programs and the constant availability of physical and mental wellness staff help set student-athletes up for success wherever their lives might take them, and these programs are often available to these individuals throughout the duration of their SOS.

Regarding *family,* previous work has found that the family is often the key supporter(s) of individuals and offsets organizational stressors and educational transitions (Adams et al., 1996; Pierce et al., 1996; Reis et al., 2009). For those in late adolescence, the most common familial support comes from parents, in which support is often transactional, with the goal of providing positive reassurance (Pierce et al., 1996). In sport, family can play a significant role in triggering and assisting in various career transitions (Pummell et al., 2008). Among transitioning athletes in particular, family members are often seen as the paramount source of support for athletes, and in transition, these networks play a crucial role in providing career opportunities, work assistance, and emotional support (Kadlcik & Flemr, 2008; Werthner & Orlick, 1986). Additionally, the family can also be used as a source of support in the absence of other networks of support while one is a student-athlete, such as professors, coaches, and teammates (Carter-Francique et al., 2015). Conversely, when familial support is not present, athletes often report that their families did not

fully understand the nuances of the SOS, and as such, they did not feel as though they could turn to them as a source of guidance and support throughout their transition, or if they provided support, the athlete did not see the value in it (Fortunato & Marchant, 1999; Gilmore, 2008).

Collectively, social support literature and theorizing around socialization indicate that emotional and esteem support are effective means of easing athletes' career transitions. It stands to reason that such benefits likely apply to former student-athletes' SOS. However, research to date has almost exclusively focused on the benefits of coach, teammate, and athletic staff support on experiences relevant for current athletes (e.g., injury recovery, performance, and sporting satisfaction). As such, this thesis extends these efforts to novel and meaningful ground and center the exchange of a communicative resource within a broader interdisciplinary effort – understanding athletes SOS. Still, it remains to be seen whether particular stakeholders offer transition student-athletes unique benefits and for which specific SOS outcomes. As such, this thesis forwards the following hypotheses and research question:

H5: Student-athletes who receive greater social support will have higher well-being outcomes during their SOS.

RQ2: Which sources of social support are the most salient in a student-athlete's SOS?

CHAPTER TWO

METHOD

Sample

Participants for this thesis were recently retired collegiate student-athletes. The sample size was 125 participants (80 female, 45 male). The age range of participants were 19-29 years old ($M = 22.52$, $SD = 1.61$), were rather racially homogenous (73.6% Caucasian), and student-athletes who competed in 17 different sports were recruited. A more detailed description of the demographic data can be found in Table 1.

Procedure

After receiving IRB approval, participants were solicited via purposive sample techniques. The researcher collaborated with athletic department administrators at a major athletic conference to recruit individuals who met the inclusion criteria of this thesis. Additionally, participants were recruited directly by the researcher from a search of various university athletic department websites. After identifying the individuals who had ceased competing within the past year, these individuals were sought out across multiple social media platforms (e.g., Instagram, LinkedIn, X). All participants were solicited with an IRB approved email or message, which was sent by either a collegiate athletics administrator that oversees student-athlete services at the conference level or directly from the researcher. To be included in the study, participants had to be at least 18 years old, competed in intercollegiate athletics in a Division-I sponsored NCAA sport, and permanently ceased their participation in athletic competition for any reason (e.g., graduation, eligibility exhaustion, removal, injury) within the previous calendar year. The provided email or message included the aims of the thesis, which is *to consider student-athletes' experiences and well-being following retirement from collegiate athletics*, and a URL for an online survey (i.e.,

https://www.qualtrics.com). Upon opening the URL, participants received a consent form. Provided participants consented and met all inclusion criteria (i.e., are older than 18 years old, participated in intercollegiate athletics at the Division- I level, and ceased competing within the past calendar year), access to the survey was granted. Data collection took place from January 2024 to early March 2024 to allow participants from multiple sports seasons to engage with the study.

Measures

The survey consisted of items and measures that assess student athletes' life satisfaction, mental health, sense of closure, cause of exit from athletic competition, athletic identity, educational background, emotional and esteem support received from various stakeholders, and demographic questions. Prior to being administered to the participants, the survey was pilot tested on undergraduate students enrolled in a sport socialization class in a social science field. The students were instructed to review and complete the survey as if they were participants, and to provide recommendations for improving the clarity of the introduction, the directions, or the questions within the survey. The pilot procedure resulted in minor revisions meant to increase the clarity of the survey (e.g., changing the list of criteria for participation into bullet point format, editing the questions to be clearer and uniform for all items to ensure all participants' responses follow the same standards).

Life Satisfaction. Student athletes' life satisfaction was operationalized with Larsen et al. (1985)'s Satisfaction with Life Scale (5 item). The unidimensional measure includes items that assess the conditions and subsequent approval an individual holds over their life (e.g., *If I could live my life over, I would change almost nothing"*). Responses are recorded on a seven-point Likert-type scale that ranges from *strongly disagree* (1) to *strongly agree* (7). The previous Crobach's alpha of the scale is α = .87 (Samaha & Hawi, 2016).

Mental Health. Student-athletes' mental health were operationalized with Lamers et al.'s (2011) Mental Health Continuum - Short form. The scale is a unidimensional measure that includes four items that assess emotional, social, and psychological well-being in response to the stem, "In the past month, I have been:" (e.*g., "Happy" and "Satisfied with Life"*). Responses were recorded on a six-point Likert-type scale that ranges from *never* (1) to *every day* (6). The previous Crobach's alpha of the scale is $\alpha = .88$ (Lamers et al., 2011).

Closure. Student-athletes' sense of closure was operationalized by Wrosch et al.'s (2007) Goal Adjustment scale. The measure is two-dimensional and includes four items that assess one's ability to distance oneself from current goals (disengagement, e.g., *It was easy for me to reduce my effort toward being an athlete*) and six items assessing one's ability to find new meaningful endeavors to pursue (re-engagement, e.g., I sought other meaningful goals, not related to being an athlete). Responses are recorded on a seven-point Likert-type scale that ranges from *strongly disagree* (1) to *strongly agree* (7). The previous Crobach's alpha of the scale ranges from $\alpha = .84$ to .86 (Messay & Marsland, 2015).

Cause of exit. Student-athletes' cause of exit was operationalized by a single, forced choice question assessing the way in which their athletic career ended. The options are based on the work of Fontana et al. (2021), and include both involuntary and voluntary, planned and unplanned options, including *exhaustion of eligibility, graduation, quitting, removal from the team, transfer* (and unable to compete at new institution)*, loss of funding or scholarship, career-ending injury, and other health concerns.*

Athletic Identity. Student-athletes' athletic identity was operationalized with Brewer et al. (2001)'s Athletic Identity Measurement Scale (AIMS). The unidimensional scale includes seven-items that assess one's self and social identities as an athlete, in addition to assessing their

affectivity towards sport (e.g., I had many goals related to sport). Responses were recorded on a

seven-point Likert-type scale that ranges from *strongly disagree* (1) to *strongly agree* (7). The

previous Crobach's alpha of the scale ranges from α = .78 to .82 (Silva et al., 2016).

Educational Background. Student-Athletes' educational background was operationalized

with two responses which assessed the autonomy participants had in selecting their degree program.

Responses were recorded on a 100-point scale, ranging from *It was assigned to me* (0) to *I was*

solely responsible for the selection of my degree program without influence. Participants were also

asked to assess the perceived degree of utility of their educational background. Responses were

recorded on a 100-point scale, ranging from *It has no utility* (0) to *I find it to have the utmost utility*

(100).

Social Support. Student-athletes' emotional and esteem support was operationalized with

Freeman et al.'s (2014) Athletes' Received Support Questionnaire, which consists of four

dimensions: emotional, esteem, informational, and tangible. For emotional support, 5-items assess

perceptions of others' efforts to offer comfort and security during times of stress (e.g., *Cheered you*

up). For esteem support, 5-items assess perceptions of others attempts to bolster one's self-esteem

and sense of competence (e.g., *Encouraged you.*). For informational support, 6-items assess

perceptions of others' attempts to provide practical and tactical guidance (e.g., *Ideas and*

suggestions). For tangible support, 6-items assess perceptions of others' attempts to provide services

to them (e.g., *Helped plan your training*). Responses are recorded on a 5-point Likert-type scale,

ranging from *never* (1) to *always* (5). These measures were provided to participants two times and

were altered each time to reflect a given stakeholder (i.e., university staff and family). Support from

athletic staff was referenced in the year leading up to exit, whereas familial support was in reference

to the year after exit. The previous Crobach's alpha of the scale ranges from α= .86 to .88

((Freeman et al., 2014; Katagami & Tsuchiya, 2017).

Demographics. Student-athletes' demographic information were collected using multiple choice questions aimed at gathering data on their *gender, ethnicity, employment status, income, marital status, and age*.

Data Analysis

The hypotheses and research questions were examined with two hierarchical regressions. For each regression, the characteristics and features of SOS will be entered in the first block, including closure, career ending injury (0 - career ending not due to injury, 1 - career ending by injury), athletic identity, autonomy in degree selection (0-100), and utility of degree (0-100). Additionally, former student-athletes' received social support from university athletic staff and family will be entered into the second block. This block structure allows for better inference into the importance of the communication of social support that may shape student-athletes SOS, which cannot be accounted for by their specific situational factors via r-square change. Likewise, examining multiple types and sources of received support may offer comparative insight into the unique importance of specific socialization resources within SOS. Former student-athletes' life satisfaction and mental health will serve as the criterion for the regression models, respectively. Prior to the analysis the data will be checked to ensure it meets statistical assumptions, including multicollinearity (i.e., Tolerance and VIF) and the independence of residuals (i.e., Durbin Watson statistic) (O'Brien, 2007).

CHAPTER THREE

RESULTS

An initial attempt to conduct the described analyses revealed significant multicollinearity issues between the dimensions of social support (Tolerance: .19-to-.68 and VIF: 2.07-to-5.24), as well as closure and career ending injury (Tolerance = .45 and VIF = 2.21). Using the large bivariate correlations between emotional and esteem support ($r = .88$ for athletic staff, $r = .77$ for family) and informational and tangible support ($r = .81$ for athletic staff, $r = .68$ for family) and standards of isomorphism (e.g., Field [2017] asserts .70 as the threshold for isomorphism) this scale was collapsed into two dimensions: personal support and task support, respectively for each source of support. Additionally, the salience of closure in the initial measures (i.e., being a significant predictor of both dependent variables) and the theoretical rationale for injury being salient because of the lack of closure led to the removal of the career ending injury variable. The result of these efforts yield regression analyses that met required statistical assumptions, including multicollinearity (i.e., Tolerance: .45-to-.81 and VIF: 1.23-to-2.27) and the independence of residuals (Durbin Watson: 2.11-to-2.18) (O'Brien, 2007).

A hierarchical regression model for former student-athletes' *life satisfaction* was significant; $F(4, 116) = 5.31$, $p < .001$, $R^2 = .22$; See Table 3. Block one was significant; $F(4,120) = 6.72$, $p < .001$, $R^2 = .16$, with closure being the only significant predictor (B = .37, $t = 4.11$, $p < .001$). The addition of block two was significant; $\Delta F(8,116) = 3.39$, $p < .001$, $\Delta R^2 = .09$, with only closure found to be significant (B = .35, $t = 3.60$, $p < .001$). However, family personal support trended toward significance (B = .30, $t = 1.90$, $p = .06$).

A hierarchical regression model for former student-athletes' *mental health* was significant; $F(8, 116) = 6.24$, $p < .001$, $R^2 = .25$; See Table 4. Block one was significant; $F(4,120) = 8.47$, $p <$

.001, $R^2 = .19$, with closure being the only significant predictor (B = .44, $t = 5.38$, $p < .001$). The addition of block two was significant; $\Delta F(8,116) = 3.39$, $p < .001$, $\Delta R^2 = .08$, with closure (B = .35, $t = 3.96$, $p < .001$), as well as personal support (B = .34, $t = 2.92$, $p < .01$) and task support (B = -.32, $t = -2.23$, $p < .05$) from athletic staff in the year leading up to SOS being significant.

To summarize, the hypotheses predicted that closure (H1), degree autonomy and utility (H4), and social support (H5) would be positively associated with higher well-being outcomes during former student-athletes' SOS, whereas athletic identity (H3) would be negatively associated with former student-athletes' well-being outcomes. Hypothesis one was supported, whereas hypotheses three, four, and five were rejected. The two research questions posed considered which characteristics/features (RQ1) and types and sources of social support (RQ2) are the most salient in a student-athlete's SOS. In regard to research question one, the findings suggest that closure was the only significant characteristic/feature of SOS in the models and uniquely accounts for 16% of life satisfaction and 19% of mental health. In regard to research question 2, support from athletic staff, especially personal support appears beneficial for mental health, but no forms of social support explained additional variance in life satisfaction.

Post-Hoc

Given cause of career exit was removed from the regression analyses given its close association with closure, hypothesis two – which predicted that student-athletes whose careers end in injury will have lower well-being outcomes during their SOS – was examined independently. An independent-samples t-test was conducted to compare life satisfaction across former student-athletes whose careers ended by injury or other means. There was a significant difference between student-athletes whose SOS was brought on by injury ($M = 4.34$, $SD = 1.29$) or a non-injury related issue ($M = 5.00$, $SD = 1.10$); $t (123) = -2.58$, $p > .05$. These results suggest that student-athletes who

began SOS because of injury have lower levels of life satisfaction. An independent-samples t-test was conducted to compare mental health across former student-athletes whose careers ended by injury or other means. There was not a significant difference between student-athletes whose SOS was brought on by injury ($M = 3.58$, $SD = 1.00$) or a non-injury related issue ($M = 4.05$, $SD = 1.08$), but the association trended toward significance t (123) = -1.97, $p = .052$.

CHAPTER FOUR

DISCUSSION

Characteristics/Features

Surrounding the characteristics and features of SOS, this study clarifies previous literature through revealing that closure is the central characteristic/feature that predicts student-athletes' life satisfaction and mental health following the completion of Division-I athletic competition with generalizable findings. Closure uniquely accounted for 18% of life satisfaction and 21% of mental health. These findings further validate previous literature that has raised concerns that sudden exits or a lack of preparedness for new commitments and roles outside of being an athletic competitor impede the transition through SOS. For example, such exits have been found to be detrimental to an individual's sense of belonging and connectedness (Blinde & Stratta, 1992; Fortunato & Marchant; 1999; Rohrs-Cordes &Paule-Koba, 2018), and life satisfaction (Webb et al., 1998).

The current thesis adds SOS scholarship by directly considering closure – as opposed to proxies, such as sudden exits – and reveals that individuals who are satisfied with their athletic careers and prepared to pursue additional goals have better subjective well-being within their first year of SOS. These states arguably allow former student-athletes to have a positive outlook, form new connections, and invest themself wholeheartedly in novel pursuits and careers more readily, whereas those who lack closure may struggle with such transitions and long for previous relationships and roles – the consequence of which includes decreased life satisfaction and mental health. Webb et al. (1998) found a similar finding with student-athletes whose careers ended by injury reporting the greatest difficulty in life adjustment during SOS; however, they attributed such difficulties to athlete identity. This study found similar outcomes but through a multivariate approach demonstrated that closure was salient in student-athletes' SOS outcomes. Previous

phenomenological research has not directly considered closure as a significant factor in contributing to well-being throughout SOS, instead indirectly touching upon the concept through unplanned forms of exit (e.g., career ending injury). With more generalizable findings this thesis answers shortcomings of many previous examinations of SOS and suggests that a nuance shift in thought and approach to SOS might be warranted. Specifically, past literature has focused on student-athletes' exposure to non-sporting roles and career planning attached to specific professions (i.e., forming alternate identities), whereas a closure-based approach considers student-athletes' evaluations of sporting expectations and experiences and the broader psychological skills of goal adjustment and pursuit, unrelated to a specific career path.

Athletic identity was not a significant predictor of either mental health or life satisfaction. A substantial amount of previous literature has highlighted that athletic identity plays a significant role in well-being outcomes following their retirement from sports, and that lower levels facilitate SOS (Brown, 1985; Erpič et al., 2004; Greendorfer & Blinde, 1985; Holding et al., 2020). In contrast to these phenomenological findings, the results of this thesis suggest that an individual's sense of closure is paramount to adjusting to life post-sport and that athletic identity did not uniquely account for SOS outcomes when other variables were considered. However, athletic identity and closure were highly associated with one another; these associations taken in conjunction with the findings suggest a potential re-consideration of the proposed model. Given the findings, it is possible closure is in fact serving as a predictor of life satisfaction and mental health, but perhaps athletic identity is mediating this relationship. Additionally, sources of social support might be moderating this statistical relationship.

Finally, this study also considers careers ending in light of an injury – although not within the regression analyses given multi-collinearity issues with closure. A post-hoc test revealed that

student-athletes whose careers ended in injury reported less life satisfaction following their SOS, and trended toward significance with mental health. This finding confirms previous research which has specifically examined the effects a career-ending injury holds over life satisfaction when compared to peers who were able to compete for the full duration of their athletic career (Klieber et al., 1987). Low life satisfaction outcomes for these individuals can be attributed to difficulties adjusting to post-sport life and many have lingering pains and challenges from their athletic careers which must be dealt with following retirement through rehab and other recovery processes (e.g., Stout, 2018; Werthner & Orlick, 1986). However, it must be cautioned that only 25 participants in this sample had their careers end in injury.

Regarding the utility and autonomy of one's education neither of these characteristics of SOS served as significant predictors of life satisfaction or mental health following completion of athletic competition. Previous research has acknowledged the potential for competing in athletics at the collegiate level to serve as gateway to upward economic mobility and prosperity, especially for individuals who hail from marginalized or disadvantaged backgrounds (Henderson et al., 2006). Within this literature obtaining a degree eases student-athletes' transitioning out of their sport through reducing career confusion. Yet, such benefits may be restricted, as student-athletes are funneled into uncommon degree programs by academic advisors due to their ease of completion and to provide flexibility for practice schedules and other athletic events (Foster et al., 2017; Schneider et al., 2010). Hence, student-athletes may have limited autonomy in degree selection and perceptions of the utility of their degrees. However, the results of this thesis suggests neither of these considerations uniquely accounted for well-being following SOS. Given the data collected was self-reported, an individual's perception of the usefulness and autonomy over their education might be skewed in light of current career success or other professional goals. Regardless of

educational circumstances, this finding suggests that preparedness for exit and the pursuit of new social goals and identities outside of athletic competition best prepare an individual for SOS.

Social Support

In regard to social support, findings revealed no significant associations with life satisfaction. However, the reception of personal support from athletic support staff members during student-athletes' final year was important for subsequent mental health of recently retired Division-I student-athletes. These results are not particularly surprising, given that emotional and esteem support serve as unique predictors of an individual's health and address higher levels of interpersonal needs (Cranmer & Sollitto, 2015; Robinson et al., 2017). This finding also extends studies which indicated social support from athletic trainers buffered against feelings of isolation and restlessness among injured athletes (Mitchell et al., 2014) or that social support from coaches aids in enduring difficulties and forming positive evaluations of sporting relationships and experiences (Cranmer et al., 2017; Cranmer & Sollitto, 2015). Athletic support staff members play key roles in the lives of student-athletes while they are competing by providing them with rehabilitative services, academic support, and minimizing any barriers which might arise along the way of their careers (Berg & Warner, 2020; Eicher et al., 2020; Knight et al., 2018). This thesis extends the notion of the potential importance of athletic staffs' support by demonstrating continued or lingering effects that extend at least a year into student-athletes' SOS. Such a finding validates that athletic support staffs' goals of fostering success after student-athletes' competitive careers end are achievable – at least in terms of personal support and mental health.

In contrast, task support from support staff members did not yield benefits for mental health but was negatively associated. The mean of task support was low, which might indicate student-athletes' lack of recognition of task support from their staff. Additionally, although seemingly

counter intuitive, support services are extensively available to student-athletes and if desired can remove much of their autonomy in day-to-day activities (Foster et al., 2017; Schneider et al., 2010). Ultimately, while task support may be helpful for those in school and constant competition, upon their completion of collegiate athletics these patterns may create a greater degree of uncertainty for student-athletes; blurring the distinction between social support and enabling. For example, in a study considering collegiate student-athletes' transitions into professional sports, Cranmer et al. (2020) found that the transition to professional sports often yields many uncertainties, including a struggle to be autonomous and efficient in common tasks (e.g., booking travel or selecting training facilities), with athletes citing the patterns established in college as a hindrance in this stage of their career. Perhaps the additional difficulty of developing autonomy is a contributing factor to diminished mental health.

Regarding the family, both personal support and task support were not significant for mental health or life satisfaction. Previous literature has asserted families can serve as significant sources of support during career transitions (Kadlcik & Flemr, 2008; Werthner & Orlick, 1986), especially when support from other stakeholders (e.g., support staff) is missing (Carter-Francique et al., 2015). Given the results of this study indicated that athletic staff played a key role in providing personal support and alleviating poor mental health, this might be one explanation as to why student-athletes did not view their family members to be supportive during this transitional period. Additionally, literature suggests families who are not viewed as supportive are viewed this way because individuals feel they do not understand the nuances of SOS itself (Fortunado & Marchant, 1999; Gilmore 2008). Given the arduous nature of SOS and its many characteristics and features, it is possible family members of Division-I student-athletes are not fully grasping the breadth and depth of SOS and may not be able to adequately relate to those in transition. Additionally, while families

have served to provide transitioning athletes with career assistance and other types of opportunities (Pierce et al., 1996; Reis et al., 2009), the distinction between enabling and supporting must again be drawn. For some, while this support might be recognized, they might rely on it too heavily and thus struggle more upon retirement. For others, they might fail to recognize or distinguish the types of support their families are providing to them. Either way, results do not indicate significant social support from family members, which is notable and sheds light on the nuances of SOS.

Implications

This thesis offers heuristic and applied implications for a host of sporting scholars and stakeholders. Heuristically, this thesis lays the groundwork for future research to better understand SOS considering the empirical findings which may have been previously overlooked by qualitative work. SOS literature is an important and continuous body of scholarship that has been studied for more than a half a century. This thesis contributes to this legacy and compendium of knowledge in three ways. First, this thesis extends the scope of this scholarship in two important ways. Previous SOS literature has largely focused on "elite athletes," who are often either Olympians or professionals (Erpič et al., 2004; Holding et al., 2020). This thesis extends this focus to Division-I student-athletes, which is apt because the demands and competitiveness of this level of athletics parallels those of elite athletes (Brewer et al., 1993; Rubin & Moses, 2017), indicating the SOS framework applies to this population. However, this population is also important to consider and is distinct, with a sizable contingent of roughly 200,000 individuals playing Division-I athletics annually (NCAA, 2022). Few of these student-athletes will become professionals and fewer will be secured financially through their sporting pursuits, underscoring a need to transition away from the role of athlete for their well-being. Yet, the nature of major collegiate athletics includes pressures and demands that can impede their development of other interests and roles (Blinde & Stratta, 1992;

Fortunato & Marchant; 1999; Rohrs-Cordes &Paule-Koba, 2018) – heightening the risks of their SOS.

Additionally, previous SOS literature is largely focused on the psychological orientations toward being an athlete or the characteristics of athletes' withdrawal from sport in determining the nature of SOS experiences. This thesis built upon these efforts by recongizing that communicative exchanges of social support could also be useful in explaining SOS outcomes – at least in terms of life satisfaction and mental health. In doing so, this thesis successfully combined elements of scholarship which have previously not been studied together into one cohesive model, which is a paramount contribution to this body of literature. The results confirmed that the addition of athletic staff support accounted for unique portions of former student-athletes' mental health that were not explained by the characteristics or features of their SOS (i.e., the addition of social support in block two of the second hierarchical regression explained an additional 9% of participants' mental health). In other words, athletes' psychological states and situational factors of exit are only a part of the SOS process and communication with other sporting stakeholders also needs to be considered by scholars.

Second, this thesis adds to the generalizability of SOS literature. Previous SOS scholarship has been limited in several ways. Most research on the SOS process is qualitative in nature (e.g., interview or focus group based), with phenomenological approaches that detail the individualized experiences of athletes (Brewer et al., 2000; Grove et al., 1997; Jewett et al., 2018; Lally, 2007; Murphy et al.,1995; Warriner & Lavalle, 2008).). The limited quantitative efforts on SOS have focused on specific subgroups of athletes (e.g., those who have been injured or elite athletes) as opposed to a wider representation of various means through which SOS occurs and the SOS process begins (Erpič et al., 2004; Holding et al., 2020; Klieber & Brock, 1992). Together, these approaches

lack desirable levels of generalizability. While the limitations of this previous research is understandable as (a) obtaining samples of elite athletes is difficult, (b) these populations are small in number, and (c) such approaches are warranted for capturing experiential nuance, these limitations restrict the ability to make scholarly claims and to offer practical assistance to practitioners. This thesis is a step toward rectifying these approaches and shows the potential to obtain samples that can provide the statistical power to be considered quantitatively and offer generalizable findings.

Third, the results of this thesis provide comparative insight into the importance of previously theorized determinants of SOS outcomes. This thesis considered multiple characteristics and features of SOS, in addition to sources of social support, with the goal of identifying which best accounts for life satisfaction and mental health. Qualitative approaches to SOS have consistently indicated that athletic identity is the central factor in determining an individual's well-being during and after their SOS (Brewer et al., 2000; Grove et al., 1997; Jewett et al., 2018; Lally, 2007; Murphy et al.,1995; Warriner & Lavalle, 2008). The results of this study, however, did not confirm these assertions. Instead, findings suggest that closure is the key characteristic in determining former student-athletes' well-being within SOS – at least for life satisfaction and mental health. The multivariate approach of this thesis enhances understanding of SOS within collegiate athletics and should be noted. While athletic identity was significantly and negatively associated with life satisfaction at a bivariate level (see Table 2), the consideration of additional variables (i.e., closure) within the regression analyses explains that and additional variance – rending athletic identity less consequential and highlighting the salience of closure. Such a shift is important in SOS literature as it emphasizes the need to focus on student-athletes' evaluations of past sport experiences and their general skill sets toward pursuing new goals, over their psychological attachment and importance

placed on being a student-athlete, when shaping and addressing their SOS.

In terms of applied applications, this thesis offers some promising focal points for sporting staff and practitioners to consider as they prepare student-athletes to cease their athletic careers. Centrally, it would appear that offering closure is the best way to ease the SOS process. While ensuring that student-athletes are satisfied with their sporting careers might be outside the abilities of staff, fostering general abilities to set and chase goals is not. In this manner, development and training offerings that focus on goal setting and pursuit could be of use. Currently, many athletic departments offer leadership and personal development programs, but the extent to which these programs are efficacious for goal setting and pursuit remains elusive in the empirical record. Future efforts and programming might be directed at encouraging student-athletes to translate their skills and abilities learned in athletic competition to other endeavors or encouraging them to use their passion for athletics to form a meaningful career in the sports and entertainment industry. Additionally, these efforts might also consider emphasizing the temporary nature of athletics and work to inspire student-athletes to be in a constant state of preparation for life outside of sports, regardless of how they might leave competition. While offerings from staff might serve as a launching pad for student-athletes to understand the temporary nature of athletics, individuals should consider constantly engaging in self-reflection exercises which encourage a state of confidence building and acceptance with one's athletic success. By taking it upon oneself to be satisfied and accepting of their athletic career, student-athletes will then be providing themselves with a lasting sense of closure throughout their competitive careers, and this will set them up for success following their SOS.

From a structural perspective, these changes might come about in a variety of ways, one of the most promising being policy changes. Given these results, governing bodies such as

conferences or the NCAA might consider hosting events and creating resources for institutions to implement at their campuses. Other changes might include required developmental programming or other obligatory commitments aimed at fostering passions and interests outside of athletic competition.

This thesis also has practical implications for the types of support offered by athletic staff in the last year of student-athletes' careers. Personal support from staff appeared beneficial in terms of fostering better mental health for student-athletes after exit, which suggests that during the beginning of the SOS transition the provision of demonstrations of caring and attempts to build athletes' confidence are enduring and impactful. Support staff should focus on having positive interpersonal interactions with their student-athletes following SOS with a specific emphasis on forming healthy, independent habits. These staff should also work to encourage competition of tasks and other goals on their own, independent of institutional assistance from staff and other programs.

However, task support was found to be negatively associated with mental health suggesting that merely providing student-athletes with needed information or services may hinder their long term wellbeing. Cranmer et al. (2020) noted the struggles of former student-athletes with issues of autonomy, as they left behind their collegiate programs and began their careers. These patterns suggest that if students are too reliant on the advisors, trainers, etc. to make their schedules and do routine tasks for them they may fail to develop basic skills and abilities to become independent. Perhaps autonomy could be cultivated through structured and planned decreases in support as student-athletes progress through their academic and sporting careers. In other words, older student-athletes should be less reliant on academic counselors and other support staff members and building skills that enable them to transition into other roles.

Limitations & Future Directions

  There are multiple limitations to this thesis which should be noted. First, regarding measurement, there were significant multicollinearity issues with the social support measures for both considered sources (e.g., emotional and esteem support, $r = .88$ for athletic staff and $r = .77$ for family; and informational and tangible support, $r = .81$ for athletic staff and $r = .68$ for family. Such issues are not completely unprecedented, as past literature has indicated high bivariate correlations between the various dimensions of social support (e.g., $r = .70+$, Cranmer, 2016; Cranmer & Sollitto, 2015; Katagami & Tsuchiya, 2016) that verged on isomorphism (Field, 2017). There are multiple potential explanations for these measurement issues including, participants have significant difficulty distinguishing between the types of support, supportive people likely provide multiple forms of support (e.g., those who provide informational support also provide tangible support), and those who recognize support likely recognize it in multiple forms (Bodie & Burlson, 2008; Holmstrom et al., 2015; Jones & Bodie, 2014). In this thesis, these issues were resolved by collapsing the four dimensions of social support into two dimensions. Future research, however, should assess the measurement model, with the purpose of both ensuring the validity of the measures and resolving these collinearity measurement issues. Additionally, future research might work to address potential interactions between variables. In the bivariate analysis concerning task social support from staff members, results were non-significant, but indicate potential interactions between variables. Second, several participants of this study indicated their athletic careers ended in an injury of some sort. However, this research did not fully encompass the nuances of career-ending injuries; for example, some injuries are life-altering, whereas others have effects which end along with one's career. Future efforts might aim to capture the depth of career-ending injuries among those who experience them, as well as the decision-making process concerning return-to-play (or

the lack thereof). For example, there is likely significant differences in the exit of someone who chose to end their career following an injury versus someone who retired at the direction of a coach, medical professional, or NCAA protocol. Such an examination would likely reveal more nuances into the body of volitional vs non-volitional exits, thus making it a valuable endeavor.

This thesis also featured a relatively small sample size, which restricts its generalizability and statistical power. Many of the results trended towards significance but ultimately failed to confirm statistical significance (e.g., injured athletes being less mentally healthy or parents' personal support accounting for life satisfaction). These trends may be significant with a larger sample. Furthermore, the sample size of the study complicates any attempts to engage in confirmatory factor analysis, given the ratio between items and participants is well beyond recommended levels (i.e., 20-to-30 participants per item) and may be a barrier toward the refinement of the observed measurement issues, as obtaining a sample of 500 participants who fit the inclusion criteria is unlikely. Future research may consider expanding the sample size, but with the recognition that former Division-I student-athletes within a year of their exits is a very specific and insulated population. Still, with a larger group of participants, there is an increased chance to find statistically significant patterns, increase the generalizability of the findings, and potentially more rigorously explore the observed measurement issues. These efforts, in particular, might benefit from targeting athletic conferences beyond the Atlantic Coast Conference, which is overrepresented in the current sample.

Third, regarding the scope of this thesis, it is limited in that not all outcomes of SOS are considered and the considered sources of social support are not exhaustive. Regarding outcomes of SOS, only two dimensions of well-being are featured in this thesis: mental health and life satisfaction. These two variables are both subjective evaluations of well-being; several other SOS-

related outcomes might be worth investigation. For example, physical health, financial stability, and social adjustment fall under the umbrella of well-being (Stoewen, 2017), and would provide a more holistic understanding of the SOS process beyond subjective well-being. Regarding sources of social support, future research might work to increase the communicative scope of this project by also assessing other relevant stakeholders in a student-athlete's life as they near transition out of competition. For example, relationships with coaches and teammates comprise a large portion of student-athletes' daily interactions and greatly shape their social environments at the time of SOS. Given that past studies have identified coaches and teammates as predictors of positive outcomes while they are still competing athletes their provision of social support may also play a key role throughout this important transition. Along with increased considerations of social support, continued scholarship might consider additional well-being variables, such as resilience, stress, grit, or other aspects of individual wellness, in order to gain a broader lens on an individual's life during SOS. Finally, future efforts might aim to examine SOS across a longer time frame (e.g., three years post-competition), or might consider a longitudinal study following a cohort of student-athletes across their post-competition lifespan. Involvement of additional athletic conferences might also yield a more comprehensive view of college athletics, given that academic and athletic resources and standards differ across the various Division-I conferences across the NCAA member institutions. Doing so might reveal greater similarities or differences among student-athletes and their experiences socializing out of sports.

CHAPTER FIVE

CONCLUSION

This thesis examined socialization out of sport (SOS) within recently retired Division-I student-athletes with the goal of determining which characteristics and features of the SOS and which sources of social support best determine their mental health and life satisfaction within the first year of ceasing athletic competition. Despite the shortcomings of the measurement and a small sample, the findings make a sizeable contribution to SOS literature, including (a) expanding the focus of SOS to collegiate student-athletes, (b) using quantitative approaches that revealed the comparative salience of closure, (c) introducing the communication of social support to this literature, and (d) highlighting the importance of athletic staff on the enduring well-being of student-athletes after their careers, at least for a year. Moreover, the results provide rationale to consider a broader scope of variables in SOS and novel approaches to addressing student-athlete well-being after they retire from athletes. Based on this thesis, communication has a role in this process and sports communication scholars are well suited to address this need.

CHAPTER SIX

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CHAPTER SEVEN

TABLES

Table 1

Participants' Demographics.

Variable	N	%
Age (years)	*M*=22.52	*SD* = 1.62
Sex		
Female	80	36.0%
Male	45	64.0%
Race		
White	92	73.6%
Black	17	13.6 %
Hispanic/Latin(o/a)	1	0.8%
Asian	2	1.6 %
Pacific	1	0.8%
Biracial	12	9.6%
Cause of Exit		
Exhaustion of Eligibility	37	29.6%
Graduation	47	37.6%
Quitting	11	8.8%
Removal from the Team	5	4.0%
Career-ending Injury	15	12.0%
Other Health Concerns	10	8.0%
5. Employment		
Employed (Full-time)	69	55.2%
Employed (Part-time)	26	20.8%
Not employed	30	24.0%
Income		
US $0-US$49,000	71	56.8%
US$50,000-US$74,999	30	24.0%
US$75,000-US$99,999	15	12.0%
US$100,000-US$149,000	6	4.8%
US$150,000 or higher	3	2.4%
Sports		
	18	14.4%
Soccer	8	6.4%
Gymnastics	11	8.8%
XC/Track and Field	1	.8%
Ice Hockey	6	4.8%
Baseball	11	8.8%

Volleyball	1	.8%
Wrestling	3	2.4%
Basketball	15	12.0%
Football	1	.8%
Field Hockey	5	4.0%
Swimming & Diving	14	11.2%
Lacrosse	11	8.8%
Rowing	9	7.2%
Softball	4	3.2%
Tennis	4	3.2%
Golf	3	2.4%
Cheer		

Conference

ACC	66	52.8%
SEC	24	19.2%
Big12	4	4.8%
Pac12	6	3.2%
Big10	3	2.4%
SWAC	1	.8%
Big East	1	.8%
MAC	1	.8%
EAGL	16	12.8%
Multiple	2	1.6%
Decline to Answer		

Sport Involvement

Regular Exercise	17	13.6%
Coaching	29	23.2%
Club Sports	22	17.6%
Rehab	1	.8%
Working in Sports	8	6.4%
Still involved with team	3	2.4%
Sport leadership groups	4	3.2%
Not involved	41	32.8%

Table 2

Descriptive and Correlational Statistics

	M	SD	α	1	2	3	4	5	6	7	8	9
1. Life Satisfaction	4.87	1.16	.90	--								
2. Mental Health	3.95	1.08	.89	.43**	--							
3. Closure	4.66	1.29	.93	.42**	.44**	--						
4. Athletic Identity	6.02	.73	.81	-.25**	-.14	-.51**	--					
5. Degree- Autonomy	82.52	20.73	--	.10	.04	.27**	-.13	--				
6. Degree- Utility	67.92	20.30	--	.07	.14	.25**	-.26**	.39**	--			
7. IP (Support Staff)	3.44	1.09	.97	.16	.24**	.14	.10	.06	.09	--		
8. Task (Support Staff)	2.30	.84	.96	.13	-.07	-.08	-.02	.12	.10	.65**	--	
9. IP (Family)	4.46	.71	.95	.32**	.20*	.18*	-.08	.04	-.03	.36**	.22*	--
10. Task (Family)	3.26	.80	.93	.29**	.04	.20*	.03	.12	-.04	.34**	.21*	.48**

Note. *** $p < .001$. ** $p < .01$. * $p < .05$.

Table 3

Hierarchical Regression Results for Life Satisfaction

Variable	B	95% CI for B		SE B	β	R^2	ΔR^2
		LL	*UL*				
Step 1						.18	.18***
Constant	3.78	1.26	6.29	1.27			
Closure	.37	.19	.20	.55	.41		
Identity	-.08	-.39	.23	.16	-.05		
Degree Autonomy	.01	-.01	.01	.01	.01		
Degree Utility	-.01	-.01	.01	.01	-.05		
Step 2						.27	.09*
Constant	1.69	-.1.14	4.51	1.43			
Closure	.35	.16	.54	.10	.38		
Identity	-.06	-.19	.08	.16	-.04		
Degree Autonomy	-.01	-.01	.01	.01	-.03		
Degree Utility	-.01	-.01	.01	.01	-.02		
Ath. Staff Personal	-.10	-.36	.15	.13	-.10		
Ath. Staff Task	.22	-.02	-.10	.53	.16		
Family Personal	.30	-.01	.60	.16	.18		
Family Task	.20	-.08	.47	.14	.14		

Note. CI = confidence interval; LL = lower limit; UL = upper limit.
* p < .05. ** p < .01. *** p < .001.

Table 4

Hierarchical Regression Results for Mental Health

Variable	B	95% CI for B		$SE\ B$	β	R^2	ΔR^2
		LL	*UL*				
Step 1							
Constant	.95	-1.32	3.22	1.15		.21	.21***
Closure	.44	.28	.60	.08	.52		
Identity	.19	-.09	.47	.14	.13		
Degree Autonomy	-.01	-.01	.01	.01	-.11		
Degree Utility	.01	-.01	.01	.01	-.05		
Step 2							
Constant	1.25	-.1.31	3.80	1.29		.30	.08*
Closure	.35	.17	.52	.09	.41		
Identity	.08	-.21	.37	.15	.05		
Degree Autonomy	-.01	-.01	.01	.01	-.06		
Degree Utility	.01	-.01	.01	.01	.06		
Ath. Staff Personal	.37	.11	.57	.12	.34		
Ath. Staff Task	-.32	-.60	-.04	.14	-.25		
Family Personal	.21	-.07	.49	.16	.18		
Family Task	-.22	-.47	.03	.13	-.16		

Note. CI = confidence interval; LL = lower limit; UL = upper limit.
* $p < .05$. ** $p < .01$. *** $p < .001$.

CHAPTER EIGHT

APPENDIX

Appendix A - Survey

Satisfaction with Life Scale (Life Satisfaction)
1-7 scale- 7 (strongly agree) to 1 (strongly disagree)
1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

PHQ-4- Mental Health
1 Never, 2 very rarely, 3 rarely, 4 occasionally, 5 frequently, 6 very frequently
Over the last 2 weeks, have you been bothered by the following problems:
6. Feeling nervous, anxious or on edge
7. Not being able to stop or control worrying
8. Little interest or pleasure in doing things
9. Feeling down, depressed, or hopeless

Goal Adjustment Scale (Closure)
7-point scale- 7 (strongly agree) to 1 (strongly disagree).
At the time of your retirement,
10. It was easy for me to reduce my effort toward being an athlete.
11. I convinced myself that I had other meaningful goals to pursue.
12. I stayed committed to the goal of being an athlete for a long time; I couldn't let it go. ®
13. I started working on new goals, not related to being an athlete.
14. I was thinking about new goals to pursue, not related to being an athlete.
15. I found it difficult to stop trying to achieve the goal of being an athlete. ®
16. I sought other meaningful goals, not related to being an athlete.
17. It was easy for me to stop thinking about being and athlete and let it go.
18. I told myself that I had a number of other new goals to focus on.
19. I put effort toward other meaningful goals, not related to being an athlete.

Athletic success
20. Upon concluding your career as a student-athlete to what extent were you satisfied with the athletic success you experienced?
[slide bar, 0-100]

Cause of exit
21. Which of the following best describes the way in which your athletic career came to an end?
● Exhaustion of eligibility
● Graduation
● Quitting

- Removal from the team
- Transfer (and unable to compete at new institution)
- Loss of funding or scholarship
- Career-ending injury
- Other health concerns

AIMS (Athletic Identity)
7-point scale- 7 (strongly agree) to 1 (strongly disagree).
22. I considered myself an athlete.
23. I had many goals related to sport.
24. Most of my friends were athletes.
25. Sport was the most important part of my life.
26. I spent more time thinking about sports than anything else.
27. I felt bad about myself when I did poorly in sport.
28. I would have been very depressed if I were injured and could not compete in sport.

Educational Background
29. Please indicate the degree of autonomy you had in selecting your major. [slide bar question, 0-100] 0 = I had no input in the selection of my degree program/it was assigned to me, 100 = I was solely responsible for the selection of my degree program without influence
30. Please indicate the extent to which you believe your major/degree program was useful. [slide bar question, 0-100] 0 = it has no utility, 100 = X I find it to have the utmost utility

Emotional Support (repeated 2 times, once for each stakeholder)
5-Point, (1) Never, (2) Rarely, (3) Occasionally, (4) Often, (5) Always
Since concluding your career as a collegiate athlete, my {athletic department support staff and parents} have …
31. Cheered you up
32. Listened to you
33. Showed concern for you
34. Made you feel that they were there for you
35. Comforted you
Esteem Support (repeated 2 times, once for each stakeholder)
5-Point, (1) Never, (2) Rarely, (3) Occassionally, (4) Often, (5) Always
Since concluding your career as a collegiate athlete, my {athletic department support staff and parents} have …
36. Encouraged you.
37. Emphasized your non-athlete abilities.
38. Told you that you could do it
39. Reinforced the positives
40. Boosted your confidence
Informational Support (repeated 2 times, one for each stakeholder)
5-Point, (1) Never, (2) Rarely, (3) Occasionally, (4) Often, (5) Always
Since concluding your career as a collegiate athlete, my {athletic department support staff and parents} have …
41. Give you advice about transitioning away from being a student-athlete

42.   Give you career advice
43.   Offer you ideas and suggest actions.
44.   Help you put the transition in perspective.
45.   Help you decide what to do next.
46.   Give you advice about what to do next.

Tangible Support (repeated 2 times, one for each stakeholder)
5-Point, (1) Never, (2) Rarely, (3) Occasionally, (4) Often, (5) Always
Since concluding your career as a collegiate athlete, my {athletic department support staff and parents} have …

47.   Help plan your transition.
48.   Help with transportation to events or opportunities (e.g., job interviews, internships)
49.   Do things for you to assist your transition.
50.   Help set up events, meetings, or networking.
51.   Help you with tasks related to your transition.
52.   Help manage experiences associated with your transition.

Demographics

53. What is your gender?
- Male
- Female
- Prefer not to say

54. What is your age in years?
{TEXTBOX}

55. What is your ethnicity? (Check all that apply)
- White/Caucasian
- African American
- Hispanic/Latino
- Asian
- Pacific Islander
- American Indian
- Other

56. Are you currently employed?
- Yes- Full-time
- Yes- Part-time
- No

57. If yes, what is your estimated annual income?
- US$0-US$49,000
- US$50,000–US$74,999
- US$75,000–US$99,999
- US$100,000–US$149,999

- US$150,000 or higher

58. Are you still active in sports and in what capacity/roles (e.g., playing in recreational leagues, coaching youth sports)?
    {Textbox}