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The Effect of Athletic Identity and Other Factors on Adaptation to Sport Retirement

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Sport retirement is a major life transition that student-athletes must navigate successfully to achieve adaptation to post-sport life. Numerous factors dictate the likelihood of successful adaptation, one of which is athletic identity. Based on thorough review of the occupational retirement literature, it has been determined that adaptation can be measured by life satisfaction. Therefore, the purpose of this study was to determine how athletic identity impacts present-day life satisfaction and if meaning in life mediates that effect. Meaning in life can be separated into two categories, the presence of and search for meaning in life. Through a quantitative survey of 104 former Division I student-athletes, we discovered significant relationships between the search for and presence of meaning in life and life satisfaction. No relationship was found between athletic identity and life satisfaction. Thus, retrospective athletic identity does not predict present-day life satisfaction unless the mediating effect of the search for meaning in life is present. Additionally, group differences were measured between sexes, type of sport played (e.g., draft eligible or non-draft eligible), and predictability of retirement. There were significant differences on the Athletic Identity Measurement Scale between males ($M = 36.1$, $SD = 7.9$) and females ($M = 32.1$, $SD = 7.8$), $t(100) = 2.55$, $p = .01$.

Keywords: sports, student-athletes, sport transition, life satisfaction

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There are many changes and transitions that occur throughout life that require us to adapt accordingly. Schlossberg's Transition Theory explains that when a major life event or non-event occurs, a transitional period leads to adaptation or failure to adapt (Schlossberg, 1981). One major life event that initiates this transitional process and subsequent response is sport retirement. Data from the National Collegiate Athletics Association (NCAA) for the 2022-23 academic year show that there were 523,662 student-athletes participating in sports across all three Divisions and 188,373 in Division I (NCAA, 2023). While becoming a collegiate athlete at any level is a feat only 3.5% of high school athletes achieve, the likelihood of competing at a post-collegiate level is even smaller (NCAA Research, 2020). The percentage of student-athletes who have the opportunity to play professionally in a draft eligible sport[1] ranges from 0.8% (women's basketball) to 9.9% (baseball) (NCAA Research, 2020). Presumably, the likelihood of competing in an Olympic sport (i.e., track and field or swimming) beyond college is far less than that of draft-eligible sports. Therefore, over 95% of student-athletes must retire from sports when their four years of NCAA eligibility expires.

Sport retirement can be likened to occupational retirement, both of which can elicit feelings of grief, loss, depression, and identity crisis (DeFreese et al., 2021; Eagers et al., 2019, 2022; Giannone et al., 2017; Menke & Germany, 2019). Using Schlossberg's Transition Theory and occupational retirement literature, the present study seeks to understand the influence of athletic identity on adaptation to sport retirement, which could be measured by life satisfaction. Additionally, the amount of meaning an individual ties to sports, athletic identity, or other interests may influence the quality of adaptation.

Theoretical Framework

Schlossberg's Transition Theory has commonly been applied to the concept of sport retirement due to the abrupt transition and subsequent change in life activities and identity. According to Schlossberg (1981), "a transition is said to occur if an event or non-event results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behavior and relationships" (p. 5). Events such as graduation, marriage, or an injury can introduce a life transition. Still, the transition can also be precipitated by a non-event, such as not making the team or not getting a promotion. The event or non-event eventually results in adaptation (i.e., growth) or failure to adapt (i.e., deterioration; Schlossberg, 1981). After any major life event, the goal is to navigate the transition and adapt successfully to the changes.

Adaptation to transition is difficult to define, as it is not marked by an "aha" moment or a distinct characteristic. Rather, adaptation "is a process during which an individual moves from being totally preoccupied with the transition to integrating

[1] Resources from the NCAA only describe the professional opportunities for sports that have drafts (NCAA Research, 2020). The *draft eligible sports* include baseball, men's and women's basketball, football, and men's ice hockey. Therefore, this term will be used throughout. The term *non-draft eligible sports* will be used to describe all other sports, often referring to Olympic sports (i.e., track & field, swimming & diving). Additionally, the terms *draft eligible athletes* and *non-draft eligible athletes* will be used accordingly.

the transition into [their] life" (Schlossberg, 1981, p. 7). Throughout the transition experience, an individual formulates a stable new identity that is fully integrated into their life. When this occurs, the transition period is said to be complete. If a new identity is not formulated, the individual is said to be in a deficit situation and has failed to adapt to the life change (Schlossberg, 1981). Numerous factors that determine the likelihood of adaptation can be summed into three main categories, including characteristics of the transition, individual characteristics, and the pre- and post-transition environments (Schlossberg, 1981). Athletic identity is an individual characteristic that influences adaptation and was a major focus of this study.

Athletic Identity

Athletic identity is "the degree to which an individual identifies with the athlete role" (Brewer et al., 1993, p. 237). With early sport participation and specialization, athletes may identify with the athlete role at a very young age. It is documented throughout the literature that a stronger athletic identity may result in less successful adaptation and/or difficulties during the retirement process (Beamon, 2012; Kidd et al., 2018; Menke & Germany, 2019). Athletes have noted feelings of loss, grief, identity crisis, sadness, depression, and anxiety in the months leading up to and following sport retirement (Giannone et al., 2017; Harry & Weight, 2021; Lavallee & Robinson, 2005; Sinclair & Orlick, 1993). To describe the mix of emotions experienced during the transition out of sport and off the team, Saxe et al. (2017) coined the term "transition blues." Stephan et al. (2003) found that these feelings change over time. Immediately post-retirement there are often feelings of relief and freedom, but the feelings of loss, grief, and anxiety tend to be most prominent six months post-retirement. By one year, most of the adverse emotions have subsided (Stephan et al., 2003).

The identity crisis that happens within the first month of sport-retirement aligns with the research of occupational retirement, where individuals note similar experiences to the abrupt life change (Eagers et al., 2022; Man & Man, 2019; Mezuk et al., 2022). It is suggested in athletic and occupational literature that pre-retirement planning and diversifying identity early-on may help with the with the transitional process and lead to successful adaptation (Barcza-Renner et al., 2020; Eagers et al., 2019; Park et al., 2012; Taylor & Ogilvie, 1994).

Measure of Adaptation

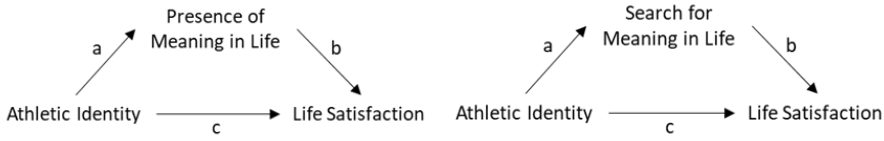
While athletic identity and other factors certainly impact the ability to adapt to sport retirement, there has yet to be a documented measure of adaptation. Based on research in occupational retirement, life satisfaction is a demonstrated indicator of adaptation to life changes (Ćwirlej-Sozanska et al., 2021; Hansson et al., 2019; Laberon et al., 2019; Sohier et al., 2021; Wang et al., 2011; Yeung, 2017). Therefore, life satisfaction was used to measure sport retirement adaptation in this study. Additionally, what has not been investigated is the potential influence of a mediator variable on adaptation. Meaning in life was explored as a potential mediating variable in the equation between athletic identity and life satisfaction.

Mediators are variables through which the independent variable works to influence the dependent variable. Mediators may also explain why and/or how responses occur (Baron & Kenny, 1986). The idea behind the mediator model is "that the effects of stimuli on behavior are mediated by various transformation processes internal to the organism" (Baron & Kenny, 1986, p. 1176). In this study, the independent variable was athletic identity, the dependent variable was life satisfaction, and the tested mediator was meaning in life. Meaning in life presents with two aspects: (a) the presence of meaning and (b) the search for meaning. Therefore, both were tested as potential mediators (Steger et al., 2006).

Figure 1a shows the mediation model used in this study. The aim of this study was to determine if a correlation exists between athletic identity and life satisfaction (path *c*), and if either the presence of meaning or the search for meaning in life mediated this relationship (paths *a* and *b*). Secondarily, an important piece of this analysis was determining if life satisfaction could be predicted by athletic identity and/or meaning in life.

Figure 1a

Mediation Model of Athletic Identity, Meaning in Life, and Life Satisfaction



Note. Meaning in life is measured by both the presence of and search for meaning; therefore, two figures are provided to display these mediation relationships.

The mediator of interest in this study is meaning in life. Steger et al. (2006) defines meaning in life "as the sense made of, and the significance felt regarding, the nature of one's being and existence" (p. 81). The vast literature on meaning shows that having more meaning in life correlates with greater work satisfaction, happiness, and positive psychological functioning (Steger et al., 2006). Conversely, less meaning in life is correlated with depression, anxiety, and substance abuse (Steger et al., 2006). While having meaning in life is an obvious positive attribute, searching for meaning is also an important motivator. The presence of meaning in life may offset the impact of high athletic identity on adaptation, as indicated by life satisfaction. Individuals who may be susceptible to poor adaptation to sport retirement due to high athletic identity may mitigate the negative impact of high athletic identity by finding significant meaning in life beyond athletics.

This study aimed to determine the key influential factors for successful adaptation to sport retirement. The following research questions guided the process:

A. What is the effect of athletic identity on adaptation to retirement from sports as indicated by satisfaction in life, and how does meaning in life mediate that effect?

B. What is the effect of sex, type of sport, and reason for retirement on adaptation to retirement from sports?

Based on previous research, the following hypotheses were made:

H1: Athletic identity will explain a significant amount of variance in (will predict) life satisfaction in post-sport life, with a strong athletic identity predicting lower life satisfaction.

H2a: The prediction of life satisfaction by athletic identity will be mediated by the presence of meaning in life.

H2b: The prediction of life satisfaction by athletic identity will be mediated by the search for meaning in life.

Methods

The present study utilized a cross-sectional survey design to assess the impact of athletic identity on life satisfaction, as mediated by meaning in life. The survey was hosted on Qualtrics, and all respondents remained anonymous. For simple linear regression with two predictors, 95% power, an alpha value of .05, and medium effect size, 107 participants were needed (Faul et al., 2009). The study was approved by the authors' University Institutional Review Board.

Sampling Procedure

Former Division I student-athletes who retired from sports between 2015-2019 were the target demographic for this study. The reason for sport retirement (i.e., expected due to graduation or unexpected due to injury) was not exclusionary. There were no restrictions on geographical location, type of sport played (i.e., draft eligible or non-draft eligible), or sex. The inclusion criteria were Division I athletes who retired between 2015-2019. The rationale for this time frame was two-fold. First, the phenomenon should be somewhat recent, so individuals can accurately recall their experiences. Second, student-athletes who retired after 2019 were competing during the COVID-19 pandemic. The pandemic caused interruptions to daily lives, and some student-athletes were unable to finish their eligibility. In contrast, others decided to continue for an extra year provided by the NCAA. Studying those student-athletes would be extremely relevant for a future project. Additionally, the NCAA's passing of name, image, and likeness in 2021 has granted more recent student-athletes some financial opportunities that previous athletes did not have and has made the student-athlete experience much different. Therefore, this restriction provided some consistency among respondents. One of the first survey questions asked for retirement year. If "other" was selected, the participant was directed to the end of the survey. Thus, the inclusion criteria of retirement year was self-reported.

Recruitment occurred primarily through social media, but direct email outreach was also used. A link to the survey was posted on various social media platforms such as Athlete Network, Facebook, Instagram, LinkedIN, and X (formerly Twitter).

Posts contained basic information about the study, a graphic stating inclusion criteria and researcher information, and a direct link to the survey. Relevant hashtags such as #studentathlete, #NCAA, and #sportretirement were used to garner traction. All posts were made public so that others were able to share the information and link, creating a form of snowball sampling. As a second form of recruitment, direct email outreach from an alumni database was used. One initial and one follow-up email were sent directly to recruit these potential participants. Some former student-athletes may have recognized the researcher's name and therefore felt compelled to participate, but there were no benefits for participation.

Instrument

The survey was administered via Qualtrics and consisted of three parts. Part one included an informed consent and asked respondents to provide demographic information including age, sex, year of sport retirement, NCAA Division competed in, and predictability of retirement (i.e., expected or unexpected). In the question of predictability, participants were given an example of each as; predictable (i.e., due to graduation) or unpredictable (i.e., due to injury). Part two consisted of three instruments; the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993), the Satisfaction with Life Scale (SWLS; Diener et al., 1985), and the Meaning in Life Questionnaire (MLQ; Steger et al., 2006). Prior to analysis, all identifiable information was removed from the data.

Athletic Identity Measurement Scale

The AIMS required participants to respond to each of 7 items to assess the strength of athletic identity on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree (Brewer et al., 1993). Items on the AIMS include statements such as, "Sport is the most important part of my life" and "I have many goals related to sport." Scores were summed to provide an overall athletic identity score. Although the AIMS is dated, it has been used regularly in more recent research, and norms have been established for both male and female athletes and non-athletes (Brewer & Cornelius, 2001; Menke & Germany, 2019). The AIMS is a consistent, reliable, and valid instrument for measuring athletic identity (Brewer et al., 1993). In this sample, internal consistency was alpha = .87. Values between .70 and .95 for Cronbach's alpha are generally accepted to indicate reliability of the instrument (Tavakol & Dennick, 2011). Responses to the AIMS were based on athletes' recall of athletic identity at the time of retirement.

Satisfaction with Life Scale

The SWLS is a 5-item questionnaire assessing overall life satisfaction at present day. Participants responded to each of the 5 items on a 7-point Likert-type scale regarding their level of agreement with 1 = strongly disagree and 7 = strongly agree (Diener et al., 1985). Sample statements include, "In most ways my life is close to ideal" and "If I could live my life over, I would change almost nothing." Scores were aggregated to yield a total score between 5 (low satisfaction) to 35 (high sat-

isfaction). The SWLS aims to assess overall life satisfaction and strategically does not include factors such as positive affect or loneliness (Diener et al., 1985). The SWLS has been shown to have high internal consistency reliability, high temporal reliability, and convergent validity when compared with other measures of well-being (Diener et al., 1985). Cronbach's alpha for this sample was .86, indicating high internal consistency. Although it is also an older measure, it has been used regularly in recent literature (Hansson et al., 2020; Laberon et al., 2019; Steger et al., 2006). Additionally, studies on occupational retirement have used life satisfaction measures to assess adjustment quality, which was the rationale for using this instrument (Ćwirlej-Sozanska et al., 2021; Hansson et al., 2019; Laberon et al., 2019; Sohier et al., 2021; Wang et al., 2011; Yeung, 2017).

Meaning in Life Questionnaire

The MLQ assesses meaning in life using 10 items, each of which the participants responded to by indicating how true the statement is on a 7-point Likert scale ranging from 1 = absolutely untrue to 7 = absolutely true (Steger et al., 2006). The MLQ can be used for the general population and assesses how individuals perceive their lives regarding meaning and purpose (O'Donnell et al., 2014; Steger et al., 2006). The MLQ is the most widely used instrument for measuring meaning in life (O'Donnell et al., 2014). O'Donnell and co-authors (2014) stated that "an independent review of all available instruments of meaning and purpose in life gave the MLQ a perfect score, the only one awarded to any instrument for its rigorous development and robust psychometric properties" (p. 97). The MLQ has two subscales, which measure the presence of meaning (MLQ-Presence) and search for meaning (MLQ-Search). Statements on the MLQ-Presence and Search scales include "My life has a clear sense of purpose" and "I am seeking a purpose or mission for my life." Item nine on the scale was reverse coded, then the scales were summed separately and analyzed separately in the mediation model. Cronbach's alpha was .89 and .87 for the MLQ-Presence and MLQ-Search sub-scales, respectively.

Athlete Retirement Questionnaire

Part three of the survey included an adapted version of the Athlete Retirement Questionnaire (ARQ; Sinclair, 1990). The purpose was to gather exploratory information on the reason for retirement, assess stress levels during retirement, and collect data on coping mechanisms. Permissions to adapt this instrument were granted from D. Sinclair (personal communication, November 11, 2022). The ARQ was created to survey Canadian national team athletes about their sport retirement experiences (Sinclair, 1990; Sinclair & Orlick, 1993). The ARQ itself includes two parts. Part 1 includes 23-items to assess the athlete's athletic career and retirement transition. The questions were answered on a 5-point Likert scale ranging from 1 = not at all to 5 = immensely to gauge the athlete's reaction to their retirement experience. The second part included forced-choice and open-ended questions to gather information on the services provided to retiring athletes. The adapted version primarily substitutes terms such as *national team athlete* and *high-performance sport* with *student-athlete*

and *intercollegiate athletics*. These adaptations do not change the intention or content of the questions. This instrument also provided insight into the resources that former student-athletes would have found valuable to assist with retirement.

Results

Mediation testing was the primary focus of this study. The outcome variable of interest was life satisfaction (SWLS), with the independent variable being athletic identity (AIMS) and the mediating variables being the presence of meaning in life (MLQ-Presence) and the search for meaning in life (MLQ-Search). Exploratory data was collected and analyzed to assess the differences between sexes, type of sport, and reason for retirement on the various concepts of athletic identity, satisfaction with life, and presence of and search for meaning in life. Data were analyzed using SAS® OnDemand for Academics.

Participants

The survey garnered a total of 221 responses. Responses were initially removed from analysis due to participation in NCAA Division II or III, retirement year being outside of 2015-2019, and if the survey was incomplete. It was determined incomplete if any of the AIMS, SWLS, or MLQ scales were not fully completed. This left 111 completed surveys representing participants who competed in NCAA Division I athletics. Seven of these participants played their sport professionally after college and were subsequently removed from the analysis, resulting in 104 NCAA Division I student-athletes who retired from sport between 2015-2019. The 104 surveys fell slightly below the projected power analysis, which indicated 107 surveys would be required. Complete demographic data and sport breakdown are presented in Table 1.

Statistical Analysis

Data were explored for assumptions of normality and data distribution. An alpha level of .05 for all statistical tests was used. First, correlation analysis was conducted to explore the relationships among all variables of interest. Second, mediation was tested following the process outlined by Baron and Kenny (1986). Therefore, the analytical process for this study was: first, regressing MLQ-Presence/MLQ-Search on AIMS; second, regressing SWLS on AIMS; and third, regressing SWLS on both AIMS and MLQ-Presence/MLQ-Search. Additionally, independent *t*-tests were utilized to analyze the differences between the following groups; sex, type of sport played (i.e., draft eligible or non-draft eligible), and predictability of retirement on athletic identity, life satisfaction, and meaning in life.

Correlations and descriptive statistics can be found in Table 2. There were significant correlations between AIMS and MLQ-Search, SWLS and MLQ-Presence, and SWLS and MLQ-Search. There was no significant correlation between AIMS and SWLS; therefore, hypothesis 1 was not supported. Although an initial correlation was not found between athletic identity and satisfaction with life, mediation testing was still conducted, based on suggestions from recent literature (Fairchild & McDaniel, 2017; O'Rourke & MacKinnon, 2018).

Table 1

Demographic Characteristics of Participants

Characteristic	*n*	%	Characteristic	*n*	%
Gender			Predictability of Retirement		
Male	42	40	Predictable	86	83
Female	61	59	Unpredictable	18	17
Non-binary	1	1			
			Type of Sport Played		
Ethnicity			Draft eligible	30	29
White	99	95	Non-draft eligible	74	71
Black/African American	2	2			
American Indian	1	1	Sport		
Other	2	2	W. Basketball	3	3
			M. Cross Country	3	3
Retirement Year			W. Cross Country	1	1
2015	22	21	Football	27	26
2016	22	21	W. Golf	3	3
2017	17	16	W. Soccer	4	4
2018	20	19	Softball	3	3
2019	23	22	M. Swimming & Diving	3	3
			W. Swimming & Diving	15	14
NCAA Division I			M. Track & Field	9	9
FBS	24	23	W. Track & Field	19	18
FCS/Mid-Major	80	77	W. Volleyball	13	12
			Other	1	1

Table 2

Descriptive Statistics and Bivariate Correlations

Name of Instrument	***M***	**SD**	**α**	**Correlations**			
				1	2	3	4
1. AIMS	33.69	8.05	.81	--			
2. SWLS	28.34	4.59	.86	-.06	--		
3. MLQ Presence	27.51	5.12	.89	.06	.47**	--	
4. MLQ Search	22.26	6.71	.87	.31**	-.37**	-.24	--

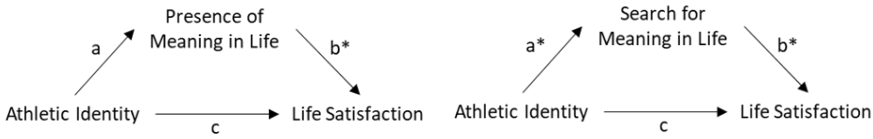
Note. **$p < .01$

Due to MLQ having two sub-scales, two mediation models were run, one with MLQ-Presence as the mediator and the other with MLQ-Search as the mediator. Using MLQ-Presence as the mediator, the following regression results were found. AIMS did not predict MLQ-Presence, $p = .56$. AIMS did not predict SWLS, $p = .53$. Together, AIMS and MLQ-Presence significantly predicted SWLS, $R^2 = .22$, $F(2, 98) = 14.22$, $p = <.0001$. The significant variable here was MLQ-Presence, $p = <.0001$, whereas AIMS was not as influential, $p = .31$.

Next, the regressions were computed using MLQ-Search as the mediator. AIMS significantly predicted MLQ-Search, $R^2 = .096$, $F(1, 99) = 10.50$, $p = .002$. AIMS did not predict SWLS, $p = .53$. Together, AIMS and MLQ-Search significantly predicted SWLS, $R^2 = .13$, $F(2, 98) = 7.18$, $p = .001$. Again, MLQ-Search indicated more significance, $p = <.001$, whereas AIMS was less influential, $p = .61$. Hypothesis 2a was not supported due to the lack of significance between athletic identity and the presence of meaning. Hypothesis 2b was supported because athletic identity predicted the search for meaning and subsequent life satisfaction. Therefore, athletic identity predicts life satisfaction when mediated by the search for meaning in life. The significant relationships are highlighted in Figure 1b.

Figure 1b

Significant Relationships Found in the Mediation Model



Note. *Significant relationships

Independent *t*-tests provided additional analyses on athletic identity, satisfaction with life, and meaning in life scores, delineated by the groups of sex, sport played, and reason for retirement. The only statistically significant difference found was between males and females on the strength of athletic identity. Males scored higher on the AIMS ($M = 36.1$, $SD = 7.9$) compared to females ($M = 32.1$, $SD = 7.8$), $t(100) = 2.55$, $p = .01$. These findings are similar to those of Brewer and Cornelius (2001), with males having higher athletic identity scores ($M = 35.92$, SD 8.59) than females ($M = 30.15$, $SD = 10.68$). No statistically significant differences between sexes were found on the SWLS ($p = .2$), MLQ-Presence ($p = .8$) or MLQ-Search ($p = .6$). There was not a significant difference between type of sport played and athletic identity. Draft eligible athletes had higher AIMS scores ($M = 36.1$, $SD = 7.9$) compared to athletes in non-draft eligible sports ($M = 32.8$, $SD = 7.9$), $t(101) = 1.89$, $p = .06$. No other differences between draft and non-draft eligible athletes were found for SWLS ($p = .5$), MLQ-Presence ($p = .8$), or MLQ-Search ($p = .5$).

While exploring the connection between predictability and satisfaction with life, we found that student-athletes who experienced predictable retirement (i.e., due to graduation) scored higher on the SWLS (M = 28.7, SD = 4.2), compared to those who experienced an unpredictable retirement (i.e., due to injury) (M = 26.5, SD = 5.6), $t(101) = 1.90$, $p = .06$. Predictability of retirement did not influence AIMS ($p = .2$), MLQ-Presence ($p = .9$), or MLQ-Search ($p = .7$).

Results from the ARQ provided a deeper look at the student-athletes' retirement experience, including what challenges they faced and how they coped with the changes. The majority of participants stated that sport retirement was a great change in their lives (M = 3.75, SD = 1.03) but that the change was generally positive (M = 3.25, SD = 0.91). Within the first 6 – 8 months post-retirement, participants missed the social aspects of sports, experienced job/school pressures, and felt a lack of self-confidence. During that transitional period, the coping mechanisms often used were training/exercise, keeping busy, finding another focus of interest, staying in touch with their sport and/or friends in the sport, and talking to someone who listens.

Most of the support received by participants was from family members and friends, with the least amount of support coming from former coaches and their university. The vast majority, 92%, said that their institution did not provide any resources to assist with sport retirement. Fortunately, 84% had something to get involved with right away, such as a job, school, or other hobbies. Approximately 80% of respondents said they had adapted to their new situation outside of intercollegiate athletics within two years of retirement. At present day, the top priorities of the participants are full-time employment, developing/maintaining an important relationship, and training/working out. About 68% stated that their current situation is more or much more important than their intercollegiate athletics experience.

Discussion

As expected from the initial correlation analysis and further supported by mediation analysis, athletic identity does not directly predict present-day life satisfaction. Likely, this was due to athletic identity being measured retrospectively and life satisfaction being measured in present-day. On the ARQ portion of the survey, the majority of participants stated that sport retirement changed their lives greatly, but only about a third of participants stated that the change was generally positive. This indicates that the majority had a negative experience with the transitional process. Most of the participants stated that their current areas of focus (i.e., job, personal relationships) are more important than their former athletic careers, indicating successful adaptation. Measuring athletic identity and life satisfaction before, at the time of, and/or immediately after retirement may change these results. Research conducted by (Stephan et al., 2003) supports the notion that life satisfaction changes over the first-year of retirement. These studies indicate that there is an initial increase in satisfaction accompanied by feelings of relief followed by a decrease in satisfaction 3 – 6 months later before returning to an overall satisfied state of being. Therefore, future studies could utilize a longitudinal design to assess the change in athletic identity and

life satisfaction over the first year of retirement to determine how quickly adaptation may occur.

Satisfaction with life can be predicted by both the presence of meaning and the search for meaning. There is general anecdotal and scientific agreement that life is more satisfying in the presence of meaning. The presence of meaning in life has been associated with high levels of psychosocial well-being (O'Donnell et al., 2014; Steger et al., 2006). Athletic identity did not significantly influence the presence of meaning, but it significantly impacted the search for meaning. The lack of connection between athletic identity and presence of meaning likely indicates that former student-athletes have found meaning in life outside of athletics, leading to life satisfaction. This would be supported by the 68% of participants who indicated that their current focus in life is more important than their collegiate athletics experiences. Future research should investigate the relationship between the presence of meaning and life satisfaction as it relates to athletics and sport retirement.

Former student-athletes with higher athletic identities (i.e., males, draft eligible athletes, and those with unpredictable retirements) may need to spend extra time searching for what gives their lives purpose and meaning. If an athlete has tied much of their purpose to athletics, it seems logical that they would need to search for a new purpose, or identity, to find satisfaction in their lives. Formulating alternative identities while still competing in sports may facilitate a successful adaptation and/or make the transitional process more manageable. Coaches, administrators, and institutions could provide resources to assist student-athletes in exploring other interests during and after their competitive days. Diversifying identity to ease transitional difficulties and promote adaptation is vastly supported in both the sport and occupational retirement literature (Beamon, 2012; Eagers et al., 2019; Lally, 2007; Lally & Kerr, 2005; Menke & Germany, 2019; Sohier et al., 2021).

Based on the current study, there is a need for programming targeted toward current and former student-athletes to help diversify identity and enhance adaptation to retirement. Those with higher athletic identities may be at risk for poor adaptation; therefore, those individuals may need to be targeted early on. The idea of programming for sport retirement is not new, but there has not been a consensus on the best, sustainable approach (Hansen et al., 2019; Park et al., 2012; Stankovich et al., 2001; Stellefson et al., 2020; Wylleman et al., 2004). The entity (e.g., the university, conference, or NCAA) responsible for these individuals upon retirement is remains unclear. Future research will need to address this gap in the literature and, most importantly, assist student-athletes through this major life change.

Limitations and Future Directions

While there are numerous strengths to this study, namely, recruiting former student-athletes representing a variety of sports and using validated and well-constructed instruments, it is not without its drawbacks. First, the inclusion criteria of retirement years between 2015-2019 means that participants may have retired up to eight years prior to participating in the survey. In that length of time, individuals may have experience other, more impactful life events. Participants were primarily

from Midwest institutions, so recruiting a more geographically diverse group would be beneficial. Draft eligible athletes were only represented by football and women's basketball. Future studies should aim at sampling a much larger and diverse demographic that is more representative of draft eligible and non-draft eligible Division I student-athletes. Further, exploration into the Football Championship Subdivision/ Mid-major level of Division I athletics and non-draft eligible sports would add to the conversation, much of which focuses on the Football Bowl Subdivision level and draft eligible sports. While both levels are Division I, it would be interesting to delve deeper into the differences and similarities of FCS and FBS athletics in regard to athletic identity, expectations of competing professionally, ease of transition, and life satisfaction. Lastly, with the current state of college athletics (i.e., NIL deals, transfer portal), examining more recent retirees would be extremely thought-provoking.

As with any study, voluntary participation and response bias may have skewed results. Participants with unique experiences may have felt compelled to participate more than those with an easy or average transition out of sports. Participants may have also felt pressure to complete the survey because it was sent to them or posted by a close friend, teammate, or coach. The sample size is another limitation. For the mediation analysis, the number of participants required to detect a medium effect size was not achieved, but we continued the analysis with full awareness that we may not be able to detect the projected effect. For the independent *t*-tests, a sample size of about 210 would have been necessary to conduct independent sample *t*-tests with 95% power, alpha of 0.05, and a medium effect size (Faul et al., 2009). Fortunately, the data from this portion of the survey was intended to be exploratory, and future studies may attempt to survey a much larger sample to assess these factors.

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