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Is it Hard Out Here for a Player?: Understanding the Relationship Between Adverse Childhood Experiences and Athletic Identity Among College Student Athletes

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It is unclear what impact, if any, early experiences with trauma may have on athletic identity. Athletic identity may serve as a protective shield for those who have adverse childhood experiences. Self-identifying as an athlete as opposed to the identity that experienced the trauma could be a defense mechanism for self-protection. The primary purpose of this exploratory study was to investigate the relationship between adverse childhood experiences and athletic identity as well as determine any influence from gender, ethnicity, and sport in a group of college athletes. Using Qualtrics software, 102 collegiate athletes currently enrolled in higher education institutions across varying NCAA divisions within the United States completed three measures: Personal Data Form, Athletic Identity Measurement Scale (AIMS), and Adverse Childhood Experiences Survey (ACES). Results found adverse childhood experiences were not significantly associated with Athletic Identity. However, results did show a difference between men and women, with a significant relationship between adverse childhood experiences and athletic identity in men but not women. Upon further examination, it was found that for men, consideration of ethnicity in conjunction with gender highlighted an even stronger relationship among Black men specifically. Implications for these findings, suggestions for university athletic departments, and recommendations for future research were made.

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Trauma is relatively recent concept with Post Traumatic Stress Disorder (PTSD) only being recognized by the American Psychiatric Association in 1980 (Friedman, 2013). One of the features of PTSD is a loss of a stable sense of self and connection to others, both of which are critical to identity development (Kirshner, 2015). When individuals experience trauma at a young age, their identity development may be affected throughout their lives. According to Erik Erikson (1968), adolescence is a pivotal time in identity formation. If the trauma happens at or especially before adolescence, it may influence how individuals view themselves and their identity.

Research has shown identity formation is important for athletes at all participation levels (Miller & Kerr, 2003). Both self-perception and social support are critical to athletic identity (Schutte & McNeil, 2015). However, the links between childhood trauma and athletic identity in high performing athletes has not been adequately researched. It is critical to understand the long-term effects of trauma not just on athletes' bodies, but also on their psychological development, identity, and self-concept. The study of early childhood traumatic stressors has been linked to numerous clinical, health, and social problems across the life span (Felitti et al., 1998). The number of categories of adverse childhood exposures showed a relationship to adult diseases including ischemic heart disease, cancer, chronic lung disease, skeletal fractures, liver disease, and multiple categories of childhood exposure were likely to have multiple health risk factors later in life (Felitti et al., 1998). However, understanding the impact of Adverse Childhood Experiences (ACEs) on athletes requires further examination of other key variables significant to the success of athletes. One such variable is athletic identity which has been heavily researched. While the impact of trauma-related disorders carries considerable risk and morbidity, early identification and treatment can mitigate those negative effects (Rothbaum et al., 2012). Trauma experience may influence athletic identity. Filling this research gap can help create more practical recommendations for larger systems, such as athletic departments at colleges and universities, to help facilitate healthy identity development among athletes who have experienced trauma early in life.

Purpose of the Study

Athletic identity may serve as protection for those who have exposure to adverse childhood experiences. Self-identifying as an athlete as opposed to the identity that experienced the trauma may be a helpful defense mechanism that individuals can use to protect themselves psychologically. One of the features of PTSD is a loss of a stable sense of self and connection to others, both of which are critical to identity development (Kirshner, 2015). If individuals experience trauma at an early age, it may impact their identity development as they move forward. So, if the trauma happens at or especially before adolescence, it could shape how individuals view themselves. The primary purpose of this study was to directly investigate if there is any relationship between childhood trauma experiences and athletic identity among college level athletes. This study also furthers our understanding of the connections found among various demographic categories and levels of childhood trauma experiences

and athletic identity. There are two important research questions to be answered by this study: 1) What is the relationship between childhood traumatic experiences and athletic identity among college athletes? and 2) Does ethnicity, gender, or sport have moderating effects on this relationship?

Literature Review

Athletic Identity

Athletes commonly base their identities on their experiences with sport and often derive self-fulfillment from the successful assumption of an athletic role. Athletic identity is also closely related to the amount of time and effort dedicated to sport activity by individuals and is based on the degree of importance, strength, and exclusivity attributed to one's role as an athlete (Brewer et al., 1993). Foundational work offered by Brewer et al. (1993) provides the groundwork for the concept of athletic identity and how to measure it. Without this foundational research we would not have an understanding of the athletic role in identity development or be able to adequately measure it.

Without the opportunities to explore and create an identity of their own, identity can become enmeshed with athleticism; where being an athlete becomes the individual's primary positionality, identity, and purpose. However, there are important positive attributes that correlate with high athletic identity including increased self-esteem, self-confidence, and elevated performance in their sport. Such outcomes are beneficial for athletes, especially while they are still performing (Tušak et al., 2005). Unfortunately, high athletic identity among some athletes may overtake their identity as individuals. They spend so much time dedicated to the game, that it becomes their only focus, with other aspects of their lives also revolving around the sport. This is exacerbated when their time, diet, body image, social networks, and lifestyle are controlled by their sport. Athletes also have their time dictated by practices, games, workouts, athletic training sessions, or meetings. Lemmons (2019) suggests this is detrimental when athletes are unable to explore interests and abilities, preventing them from preparing for life after sports. It is critical to analyze how athletes view and define themselves as individuals, as athletic identity is a foundational part of who athletes are.

Childhood Trauma

Childhood trauma is often understood through examination of Adverse Childhood Experiences (ACEs) from the CDC-Kaiser Permanente Adverse Childhood Experiences Study which investigated childhood abuse, neglect, and challenges and their impact on health and well-being later in life. This study examined all types of abuse, neglect, and other potentially traumatic experiences that may occur to individuals under the age of 18 (Felitti et al., 1998). The National Institute of Mental Health = (2022) defines a traumatic event as a shocking, scary, or dangerous experience that affects someone emotionally. Individuals who experienced four or more categories of childhood exposure, compared to those who had experienced none, had increased

health risks for alcoholism, drug abuse, depression, and suicide attempt; an increase in smoking, poor self-rated health, and sexually transmitted disease; and an increase in physical inactivity and severe obesity (Anda, 2007; Anda et al., 2008; Brown et al., 2009; Felitti et al., 1998). The wide impact of these adversities has caused childhood trauma to be viewed as a public health concern (Anda et al., 2010). ACEs have been associated with higher risk for suicide, substance abuse, mental illness, sexually transmitted infections, teen pregnancy, cigarette smoking, and obesity in adulthood (Bellis et al., 2013; Felitti et al., 1998; Hillis et al., 2004). While ACEs are prevalent across all demographic groups, some populations experience a more vulnerable, unequal burden of exposure to ACEs because of the social and economic conditions in which they live, learn, work, or play (Merrick et al., 2018; Wade et al., 2014; Wolff et al., 2018). Research has shown those who identified as Black, Latinx, or multiracial, those with less than a high school education, those with annual income under $15,000, those who were unemployed or unable to work, and those identifying as Gay/Lesbian/Bisexual reported significantly higher exposure to adverse childhood experiences than comparison groups (Merrick et al., 2018). Elite athletes experience a higher risk of mental disorders relative to the general population; specifically, in diagnoses such as anxiety, depression, and alcohol use disorders (Gouttebarge et al., 2019; Purcell et al., 2019; Rice et al., 2016). Elite athletes may have increased rates of trauma-related symptoms and disorders compared with the general population; commonly developing coping strategies that may be adaptive in the setting of trauma, but may also mask trauma-related symptoms, making trauma-related disorders more difficult to detect (Aron et al., 2019; Bateman & Morgan, 2019.).

Elite Athletes and Traumatic Experiences

There has been an exploration of adversity among elite athletes suggesting talent needs trauma; or potential can benefit from, or even need, challenges for eventual performance (Collins & MacNamara, 2012). A number of models have been developed including a functional descriptive model (FDM) of posttraumatic growth (Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 1995, 2004; Collins et al., 2016) and an organismic valuing theory of growth through adversity (Joseph & Linley, 2005). A more recent theoretical development in this area is the Affective-Cognitive Processing Model (ACPM) of posttraumatic growth (Joseph et al., 2012). This final model is based on posttraumatic growth occurring at an optimal point where there has been enough stress to challenge one's fundamental assumptions, but not so much stress that an individual is unable to cognitively process or cope with the stress (Howells & Fletcher, 2015). It may not be the trauma itself that creates elite athletes; but rather what the athlete brings to and takes away from those experiences, along with a supportive sport environment (Allan, 2018; Savage et al., 2017). Exposure to trauma does not necessarily differentiate the best elite athletes from other elite athletes; rather it is athletes' innate psychological skills and the ability to learn from their experiences that may set them apart (Collins & MacNamara, 2012). A study of 16 Great Britian Olympic champions compared medalists against 16 non-medaling Olympians. All medalists exposed to trauma as children, such as

parental death or divorce, physical and verbal abuse, or an unstable home environment, were compared to non-medalists. Content analyses found no differences between super-elite and elite athletes in family values, conscientiousness, or commitment to training. But the two groups were found to be different with regard to the experience of a foundational negative life event coupled with a foundational positive sport-related event, the experience of a career turning point that enhanced motivation and focus for their sport, need for success, obsessiveness and/or perfectionism with regard to training and performance, ruthlessness and/or selfishness in the pursuit of their sporting goals, dual focus on both mastery and outcome, the use of counterphobic attitudes and/or total preparation to maintain higher levels of performance under pressure, and the relative importance of sport over other aspects of life (Hardy et al., 2017). In a study of performers and athletes, those with high ACEs displayed more dissociative processing, representative of both dissociative absorption and pathological dissociative processing such as depersonalization, dissociative amnesia, and identity confusion; as well as reporting significant levels of internalized shame, and trait anxiety (Thomson & Jaque, 2019). From this perspective, athletes may search for meaning in their adversity, which may help them develop an edge over their competition (Tamminen et al., 2013; Fletcher & Sarkar, 2012).

Athletes may use dissociation to focus their attention and distract them from painful feelings. Dissociation is a psychological defense mechanism associated with trauma, which sets the traumatic memory apart from consciousness (Leahy, 2011). A study conducted with Olympic swimmers revealed those who had experienced traumatic adversities developed multiple identities (Howells & Fletcher, 2015). Dissociation may provide protective detachment from overwhelming impacts, but it may also result in disruption with the integrated functions of consciousness, memory, identity, or perception of environment (Van der Kolk et al., 1996). This coping strategy may build resilience but impair well-being in the long-term. There have been gender differences found in use of dissociative strategies, suggesting women are more apt to avoid pain compared to men, who may view tolerance of pain as representing strength and endurance (Philippe & Seiler, 2005). Female athletes are more likely to be diagnosed with psychological problems than men and appear more susceptible to difficulties encountered in their environment (Schaal et al., 2011). Analyses disaggregated by gender suggest the social context of abuse may be different for men and women (Leahy et al., 2008).

Although these studies provided evidence linking trauma for elite athletes, more research is needed to empirically support the impact of trauma on collegiate athletes. Given the lack of research linking athletic identity and childhood trauma, it is unclear what impact, if any, early experiences with trauma may have on athletic identity. Since both self-perception and social support are critical to athletic identity (Schutte & McNeil, 2015) and impacted by traumatic experiences (Lanius et al, 2020), there are valid reasons to examine whether trauma influences athletic identity development.

Theoretical Framework: Social Identity Theory

Social Identity Theory is an exploration of the interplay between personal and social identities (Tajfel & Turner, 1979). This theory analyzes the role of self-concept in group membership, group processes, and intergroup relations embracing interrelated concepts that focus on social-cognitive, motivational, social-interactive, and macrosocial facts of group life (Hogg, 2018). The theory further proposes that people strive to achieve or maintain a positive social identity, boosting their self-esteem, and this positive identity derives from favorable comparisons that can be made between ingroup and relevant outgroups. Further, with an unsatisfactory identity, people may seek to leave their identified role or find ways of achieving more positive associations for it (Brown, 2000). In relation to this study, this theory may explain why in the presence of more traumatic childhood experiences, individuals align themselves with their athletic identity role to serve as a protective effort and social identity desirability. This occurs through a social comparison process (Stets & Burke, 2000). In early work, Hogg and Abrams (1988) assert individuals place themselves in social categories as parts of a structured society and exist only in relation to other contrasting categories where each has more or less power, prestige, or status. Ultimately, an athletic identity may hold more power than the identity role that experienced the trauma.

Method

Measures

Participants completed three measures as part of this study: Personal Data Form (PDF), Athletic Identity Measurement Scale (AIMS), and Adverse Childhood Experiences Survey (ACES). The first author developed the PDF, which collected information on the participant's practiced sport, gender, age, and race.

Athletic Identity Measurement Scale (AIMS)

Athletic identity was measured with the Athletic Identity Measurement Scale (AIMS; *Brewer et al., 1993*). There are other scales related to athletic identity, but AIMS is the most widely accepted (Proios, 2013). The measure is a 10 -item questionnaire utilizing a Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) which yields a potential score ranging from 10-70. To score the questionnaire, the points are totaled for a score that represents their athletic identity. A study with a sample of 332 Division III student-athletes found an average Athletic Identity score of 48.24 out of 70 (Stokowski et al., 2022). The AIMS originally measured three factors of athletic identity: exclusivity, social identity, and negative affectivity. The exclusivity subscale measures the degree to which an individual's self-worth is established through participating in the athletic role. The social identity subscale measures the degree to which an individual views themselves as assuming the role of an athlete. The negative affectivity subscale measures the degree to which individuals experiences negative emotion due to unwanted sporting outcomes (Pro-

ios, 2013). However, self-identity has also been considered as the fourth factor of the AIMS questionnaire (Martin et al.,1997). The AIMS questionnaire demonstrates high test-retest reliability and internal consistency (Brewer et al., 1993). The internal consistency of the AIMS is α =.76 (Visek et al., 2008) which is an acceptable level of internal consistency.

Adverse Childhood Experiences Survey (ACES)

The Adverse Childhood Experiences Survey measures childhood trauma experiences *(Felitti et al., 1998)*. The ACES survey originally explored seven negative life experiences including physical abuse, sexual abuse, psychological abuse, household substance abuse, household mental illness, witnessing violence towards one's mother, and history of incarceration within the household; but this has since been expanded to include parental separation or divorce, physical neglect, and emotional neglect (Burke et al., 2011; Dong et al., 2004; Felitti & Anda 2010). The 10-item questionnaire assesses 10 types of childhood trauma measured in the ACE study. Five are personal acts experienced by the respondent: physical abuse, verbal abuse, sexual abuse, physical neglect, and emotional neglect and an additional five are related to other family members: a parent who's an alcoholic, a mother who's a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness, and the disappearance of a parent through divorce, death or abandonment (Burke et al., 2011; Dong et al., 2004; Felitti & Anda, 2010). Each affirmative answer is assigned one point. To score the questionnaire, the points are totaled for a total ACE score. Each type of trauma counts as one, no matter how many times it has been experienced. ACES is a reliable and valid assessment with a strong internal consistency of α= .88 (Murphy et al., 2013).

Procedures

Recruitment strategies included using athletic division email listservs and social media. Athletic departments from various NCAA conferences were emailed requesting the survey be forwarded to their student athlete listserv. A recruitment flyer was shared on related social media pages. The survey was conducted using Qualtrics software and began with a brief description of the study, instructions on how to complete it, and participants were made aware that they could stop at any time. Next, there was an informed consent form where participants were asked to acknowledge they read the description of the study, were over the age of 18, and agreed to the terms of the study. No identifying information about the student-athletes or their institutions were collected and there were no incentives offered for completion of the survey by the researcher. The data collected is password protected and maintained by the researcher.

Participants

This sample included 122 collegiate athletes currently enrolled in higher education institutions across varying NCAA divisions within the United States. Of the 122 surveys collected, 20 (16.4%) were excluded from the analysis due to missing data.

Of the numerous sports sanctioned by the NCAA, only seventeen categories of sport were included in the study to clearly analyze the variances that exist between the most represented collegiate sports. Individuals who could not speak/read English or were over the age of twenty-five were excluded from the study, as older students may have already experienced life transitions that may affect their athletic identity. Participant demographics can be seen in Table 1. Of the participants, 70 (68.6%) were women, 31 (30.4%) were men, and 1 (1%) was identified as nonbinary/trans. The racial ethnic identity of the sample was primarily White, with 68 (66.7%) participants identifying as White, 22(21.6%) as Black, 1 (1%) as Asian, 5 (4.9%) Pacific Islander, 3 (2.9%) Native American, and 3 (2.9%) as Latinx. Twelve collegiate sports were represented including 18 (17.6%) of the athletes were on teams from track and field/cross country, 18 (17.6%) from soccer, 17 (16.7%) from football, 11 (10.8%) from baseball/softball, 9 (8.8%) from tennis, 9 (8.8%) from volleyball, 8 (7.8%) from wrestling, 5 (4.9%) from basketball, and 3 (2.9%) from swimming/diving. There was 1 (2.9%) athlete from each sport of lacrosse, gymnastics, and hockey. The athletes' ages ranged from 18 to 23, with a mean age of 20.12 years.

Results

Descriptive statistics of all study variables were first run to assess for normality using SPSS Statistical Software. Means (SDs) and bivariate correlations were computed for the two primary study variables. Descriptive statistics of the measures can be seen in Table 2. In this sample of 102 student athletes, the lowest ACES score was 0, maximum score was 8, with a mean score of 1.33. This is aligned with the national averages with fifty seven percent (57.8%) of people in America having an ACE Score of at least 1 (Giano et al., 2020). The lowest AIMS score was 28, maximum score was 70 and a mean of 53.91.

Research question 1

To assess the first research question regarding athletic identity and adverse childhood experiences, a Pearson's correlation was completed at a .05 level of significance. Adverse Childhood Experiences were not significantly associated with athletic identity. The correlation between ACES and AIMS indicated there was no significant relationship between the two variables at $r(95) = .184$, $p = .064$.

Research question 2

A Pearson's correlation was completed at a .05 level of significance. Scores on the AIMS and ACE assessments were correlated variables controlling for age, gender, race, and sport type. The results showed when controlling for age, gender, race, and sport type, the AIMS and ACE scores were significantly correlated, $r(95)$, .207, $p = .042$. When examining the controlled variables, only gender was significantly correlated with the measures. Therefore, the data were split by gender to determine if the pattern of significance was different based on this variable. Only one partici-

Table 1. *Participants Demographic information*

Individual Variables	N	Percent (%)	Mean	Standard Deviation
Age	102		20.1	1.5
Gender				
Male	31	30.4		
Female	70	68.6		
Non-Binary/Trans	1	1		
Ethnicity				
White	68	66.7		
Black	22	21.6		
Asian	1	1		
Pacific Islander	5	4.9		
Native American	3	2.9		
Latinx	3	2.9		
Sport				
Track & Field/Cross Country	18	17.6		
Soccer	18	17.6		
Football	17	16.7		
Baseball/Softball	11	10.8		
Tennis	9	8.8		
Volleyball	9	8.8		
Wrestling	8	7.8		
Basketball	5	4.9		
Swimming/Diving	3	2.9		
Lacrosse	1	.97		
Gymnastics	1	.97		
Hockey	1	.97		

Table 2. *Descriptive statistics for ACES and AIMS measures*

Measure	N	Minimum	Maximum	Mean	Standard Deviation
ACES	102	0	8	1.33	1.804
AIMS	102	28	70	53.91	8.899

pant identified as non-binary/trans, so they were removed from the study due to lack of power for this level of gender variable. The two genders examined were women and men. Data was analyzed using a predictive regression model with AIMS and gender as the predictor variables and scores on the ACE as the criterion variable. Data were also evaluated by gender for scores on the AIMS and ACE using an independent-samples t-test to determine differences by gender. All results were analyzed at a .05 level of significance. Results showed the overall model was not significant, $F(2, 99) = 1.882$, $p = .1658$ (SOE = 1.778, R 2 = .04). However, when evaluating the independent contribution of each predictor variable, scores on the AIMS were significantly predictive of scores on the ACE ($\beta = .199$, $p = .05$), whereas gender was not significant ($\beta = -.519$, $p = .61$). The results suggest scores on the AIMS are a significant predictor of ACE scores regardless of gender. To evaluate the gender variable further, an independent-samples t-test was conducted. The results with ACE as the dependent variable failed to show significance, $t(99) = -0.268$, $p = .79$, $d = -0.06$, suggesting ACE scores do not differ by gender. However, with scores on the AIMS as the dependent variable, the results did reach significance, $t(99) = -2.430$, $p = .01$, $d = -0.52$, showing AIMS scores were significantly higher for men ($M = 56.94$, $SD = 7.81$) than for woman ($M = 52.40$, $SD = 1.08$).

While there was not a significant relationship between those two variables, this notable significant interaction is worth exploring. Results showed there was a difference between men and women with a significant relationship between adverse childhood experiences and athletic identity in men but not women. This relationship amongst men is found in Figure 1 and women in Figure 2.

Figure 1

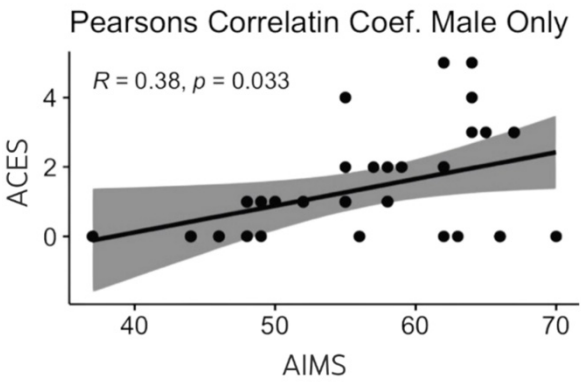
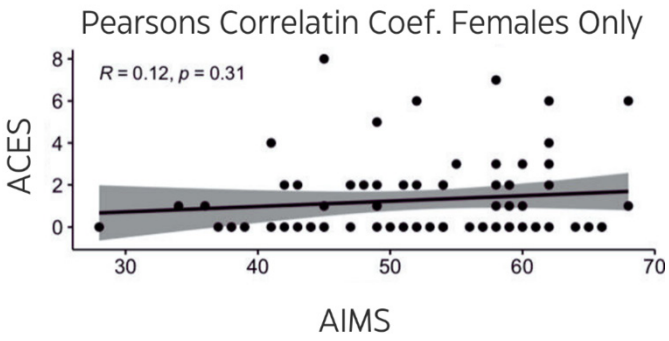
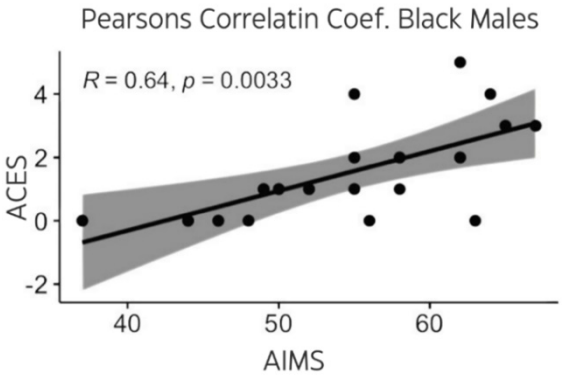


Figure 2



Upon further disaggregation, it was found among men, consideration of ethnicity in conjunction with gender highlighted an even stronger relationship within Black men specifically. This relationship is shown in Figure 3.

Figure 3



Discussion

The main objective of the present study was to investigate the relationship between adverse childhood experiences and athletic identity as well as determine any influence from gender, ethnicity, and sport in a group of college athletes. The results suggested there was no significant relationship between adverse childhood experiences and athletic identity. While there are not studies exploring the relationship between these two specific variables, Sarkar, Fletcher, and Brown (2015) suggest adversity-related experiences may be vital in the psychological and performance development of Olympic champions. What was missing in connecting the findings to

the literature is this study's lack of exploration of growth opportunities. According to the literature on the Posttraumatic Growth Model, constructive cognitive processing is connected with the adverse experience necessary for growth to occur (Calhoun et al., 2010; Calhoun & Tedeschi, 1998; Tedeschi & Calhoun, 2004; Sarkar et al., 2015). Content analyses in a study with Olympic medalists revealed elite performing athletes possessed the experience of a foundational negative life event coupled with a foundational positive sport-related event (Hardy et al., 2017). This suggests it is not adversity alone, which is confirmed in this study's findings, but adversity partnered with a constructive corrective experience that impacts the psychological development of athletes. Also, in comparing professional athlete identity to collegiate athletes, some professional athletes are able to achieve excellence while sustaining a multidimensional life story and identity by overt resistance or covertly manipulating their public stories and actions, which becomes easier as they grow in age, maturity, and naturally develop multiple identity roles (Brewer et al., 1993 ; Carless & Douglas, 2013; Miller & Kerr, 2003). Contrary to the previous findings in the literature, this study does not support a significant relationship between adverse childhood experiences and athletic identity. This demonstrated the need to disaggregate data further based on other demographic categories (i.e., race and gender). After doing so, researchers found a significant correlation specific to Black male athletes. This provides meaningful evidence to support that Black males who have experienced a higher number of adverse childhood experiences also have a stronger athletic identity.

It is important to understand the gender differences highlighted in this exploratory study. A recent study conducted with 250 college athletes utilizing the AIMS questionnaire found athletic identity was higher in men than women for total scores as well as all subscales, with a statistically significant difference found in the social identity subscale (Rajan & Varma, 2022). The social identity subscale measures the degree to which individuals view themselves as assuming the role of an athlete (Proios, 2013). Cultural socialization, biological differences, and gender stereotyping may influence women's perceived role as athletes amongst other roles they may assume (Vealy & Chase, 2016). Despite having lower levels of athletic identity, female athletes have higher levels of anxiety and depression symptoms than male athletes (Antoniak et al., 2022). Conformity to traditional masculine norms is influenced by athletic identity, with sport representing "an influential institution of masculinity socialization that impacts the psychosocial development of many men in American society (Steinfeldt & Steinfeldt, 2012, p. 115)." In addition, male athletes are less willing to seek mental health treatment, especially those who ascribe to hegemonic notions of masculinity (Moreland et al., 2018). According to Social Identity Theory, men demonstrate a stronger link between masculinity and the avoidance of psychological help seeking relative to women, because their in-group social identity status is connected to the demonstration of masculine ascribed behavior (Heath, 2019). These factors may allow athletic identity to uniquely serve as a buffer for adverse experiences for men in a way that it cannot for women.

Examining the impact of race or ethnicity among male athletes also requires examination. The combination of historical-systemic, community, intergenerational, and personal trauma exposure may impact African Americans' stress-related biology and approach to coping and render them more vulnerable to long-term effects of ACEs (Hampton-Anderson et al., 2021). Results from a study by Curtis et al. (2021) supported the idea of masculinity ideology serving as a mechanism for coping with stressful, harsh environments. They also found Black men who experienced ACEs were more likely to endorse forms of masculinity associated with risky or aggressive behaviors, suggesting this as compensation for contextual factors limiting their ability to engage in higher education. This could also imply adoption of athletic identity as a form of masculinity could be a compensatory safeguard for coping that does not limit ability to engage in higher education but may advance their opportunities. African American men may perceive they derive certain tangible and intangible benefits from participating in athletic programs (Singer, 2008). Literature centering Black men and athletic identity, proposes that African American male athletes are more likely than White male athletes to view sports as the focal point of their lives and believe others view them only as athletes (Beamon, 2012; Harrison et al., 2011; Murphy et al., 1996; Scales, 1991). In alignment with Social Identity Theory, higher athletic identity could serve as a protective factor for Black males who have experienced multiple adverse childhood experiences as a resiliency and resistance strategy as a result of the unique intersectionality of Black male collegiate athletes and their perceptions of identities that possess power in society.

Implications

According the National Colligate Athletic Association (NCAA), in 2021 the number of student athletes reached to over 520,000 (NCAA, 2022). With a growing number of student athletes entering college, the level of mental health concerns is likely to increase. Growing numbers of college student-athletes are reporting significant mental health issues, including depression. Gardiner (2006) found that somewhere between 10 and 20 percent of college student-athletes experienced depression, whereas Maniar, Chamberlain, and Moore (2005) found student-athletes experienced depression more often than their non-student-athlete peers. It is vital for athletic staff and professionals to be aware of the potential relationships among adverse childhood experiences (ACEs) and an athlete's vulnerabilities, which might encourage the use of screening to better diagnose and manage their symptoms. Data is sparse regarding whether student-athletes are screened for PTSD, however, relatively high rates of PTSD in this population may warrant routine screening for trauma related symptomatology (Aron et al., 2019). Such actions could minimize the negative symptomology resulting from cumulative childhood trauma (Cloitre et al., 2009). This information can also provide more practical recommendations to larger systems such as athletic departments to help facilitate healthy identity across all sports and groups of athletes. While general guidelines exist for the treatment of trauma related disorders, treatment, and screening protocols specific to elite athletes have yet to be established and implemented (Aron et al., 2019).

Assessment for athletic identity can also be beneficial for athletic programs to better serve athletes. Strength of athletic identity is a consistent predictor of emotional adjustment to career termination across different kinds of sport and performance (Kuettel et al., 2017; Ronkainen et al., 2016; Willard & Lavallee, 2016). One framework born from research with student-athletes is the Positive Transitions Model (Stankovich et al., 2001). Developed at a Division I university, the model has three components: identity development, athletic transferable skills, and career exploration. The course includes (identity development) exploring values, personality, and interests; (athletic transferable skills) goal setting and communication and decision-making skills; and (career exploration) professional networking, informational interviewing, resumé writing, and job interviewing. Evaluation of the model has shown it to be effective in transitioning students with extremely high athletic identity into more positive ranges of athletic identity (Stankovich, 1998). This reduction in or rebalancing of athletic identity may be helpful for athletes because it helps them begin to explore their career options, rather than holding onto their athletic identity and being reluctant to separate from the sporting space. The descent of athletic identity allows student athletes to invest in other roles (Lally & Kerr, 2005). Related to the current study, this provides opportunities for expanding identity development in racialized gender groups that may be at risk for difficult transition out of sport.

Student athlete long-term well-being could be promoted with interventions tailored to individual level of athletic identity. Athletic departments may want to consider allocating resources and programming specifically designed to meet the needs of student-athletes annually to prepare all athletes for life after college athletics by assisting in the development of a multidisciplinary athletic staff to promote student athlete self-identity (U'Ren, 2017) as well as designing effective mental health interventions (Watson, 2005). With screening information obtained, efforts could be designed to target high risk students. Those students with high athletic identity and high adverse childhood experiences could be offered additional outreach experiences promoting mental health and coping skills programing, job shadowing opportunities in relevant career fields, community engagement experiences, and scheduled check-ins with academic advisors. In alignment with social identity theory, these self-enhancement actions could influence the student's group commitment and self-identity (Ellemers et al., 2002). These efforts would all be with the goal of creating safe opportunities to promote identity exploration. Professionals trained in trauma-informed mental health practice could assist athletes in developing skills and engaging in constructive corrective experiences to cope with challenges as a part of a multidisciplinary athletic staff (Bennett, 2022, 2023). While college athletes are less comfortable seeking counseling services than other academic or athletic resources, especially Division I athletes (Moore, 2016), Daltry et al. (2023) suggests if athletes, athletic personnel, and coaches feel understood and counselors are knowledgeable about athletic culture, they may be more likely to refer to and seek out mental health services. Building a supportive trusting environment helps staff and athletes.

Limitations and Future Research

The limitations of the study included the self-report nature of the measures and potential social desirability bias. Even with measures to ensure anonymity, self-reported data of this kind can be problematic due to the sensitive nature of the questions (Gnambs & Kaspar, 2015). The most pronounced limitation of this study was the sample size. The small sample size posed a power problem and inhibited further analysis. Also, support systems, social connections, years in sports, opportunities in playing, and other external factors were not accounted for in this study. These factors could potentially play a role in the measured interactions, rendering different responses if investigated.

Future research could also include information on the current wellbeing of student athletes, as well as ACEs and AIMS. Further research on the relationship between trauma and identity has the potential to inform prevention and intervention efforts aimed at reducing the negative effects of traumatic experience and increase positive growth effects (Berman, 2016). Researchers may choose to further explore the social construct of gender and its influence on the relationship between ACES and AIMS through examining how male athletes use sports to distance themselves from adverse childhood experiences by focusing on their athletic identity. In researching male athletes, research could explore what makes men believe sports can be a safe space and buffer for those with adverse childhood experiences. Specifically with Black men, identity and positionality can be explored qualitatively to amplify the voices and experiences of the student athletes. Howe (2023) found the experiences and perceptions of identity among Black male college athletes differs depending on context, socialization, societal assumptions, and a consciousness or understanding of multiple social identities; and proposes that athletic department officials, institutions of higher education, and scholars can benefit from increased understanding of Black male college athlete identity to better support them. More information is needed on why this might not be true for female athletes or how gender roles impact them in unique ways. Utilizing alternative methodologies such as focus groups or qualitative interviews would be a way to examine any connections between adverse childhood experiences and athletic identity. Additionally, longitudinal studies that examined athletic identity and adverse childhood experiences over time might provide fruitful information.

Conclusion

The present exploratory study investigated the relationship between adverse childhood experiences and athletic identity and analyzed influence from gender, ethnicity, and sport in 102 NCAA collegiate athletes currently enrolled in higher education institutions within the United States between the ages of 18 and 23 using the Athletic Identity Measurement Scale (AIMS), and Adverse Childhood Experiences Survey (ACES). We found adverse childhood experiences were not significantly associated with athletic identity, adverse childhood experiences and athletic identity

had a significant relationship in men but not women, and an even stronger relationship between the two variables within Black men specifically. Findings highlighted the literature's position that it is not adversity alone that impacts the psychological development of athletes. Assessment for ACEs and athletic identity can be beneficial for athletic programs to better serve athletes. University athletic departments may also employ a multidisciplinary staff to assist student athletes' development holistically. Future research could utilize alternative methodologies, examine mental resilience in Black male athletes, and explore how social constructs impact student athletes, to inform prevention and intervention efforts with these populations.

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JOURNAL OF INTERCOLLEGIATE SPORT

Follower-Leader Development: Uncovering Micro-moments of Female Student-athlete Leader Development

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Most scholarly attention within sport management leadership research has focused on four main leadership theories: authentic, servant, transactional, and transformational. While recent research included the social construction of leadership and a call to explore more follower-centric aspects of leadership, little empirical research has focused on how leaders develop, or more succinctly – leader development. Much of the leader development literature to date has mainly focused on large interventions or outcomes, oftentimes overlooking day-to-day, micro-moments of leader development. In sport-related research there has been a paucity of research directly addressing development of women and girls as leaders. The purpose of the current study, therefore, was to determine how female intercollegiate student-athletes develop into leaders through micro-moments. This study employed a qualitative approach using interviews and observations. Participants included two National Collegiate Athletic Association (NCAA) Division III female teams. Three themes emerged from qualitative semi-structured interviews (N = 30) and observations (12 hours total) identifying the micro-moments of development: empowerment, modeling leadership, and peer-to-peer leadership. Findings explain how these micro-moments aid in the leader development process. The study enhances a theoretical understanding of intercollegiate student-athlete leader development.

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Much of the research on leadership in sport has centered on leadership theories such as transformational, transactional, servant, and authentic (Billsberry et al., 2018; Ferkins et al., 2018; Welty Peachey et al., 2015). There has also been an emphasis on linking each theory or leadership style to specific outcomes, which is important to sport organizations, intercollegiate athletics, and to student-athlete development (Welty Peachey et al., 2015). Typically, most of the sport leadership research has focused on leaders and the leadership level of analysis. While valuable, this foundation has a substantial gap in the literature related to the process(es) of leader *development*, which has mostly gone unattended in both the parent leadership discipline and in sport management (Ferkins et al., 2018; Welty Peachey et al., 2015). The lack of research on leader development is surprising given the inherent role it plays in benefiting organizations across all industries (Day et al., 2014; Frost, 2016). Further, Hammon et al. (2017) argued the leader development process spans multiple domains of life (e.g., work, personal life, various communities). Damon et al. (2022) recently alluded to the gap of leader development by calling on future sport leadership research to consider how followers and others develop into leaders as well as enhancing our understanding of how women can continue to forge into leadership positions.

Historically, leaders and leadership have been constructed and embedded in a context influenced by assumptions and beliefs often associated with men and masculinity (Leberman, 2017). Thanks to Leberman (2017) there has been some focus on leader or leadership development for girls and women, despite the historical emphasis on men and boys. This is particularly important because in masculine-oriented cultures, women's leadership experience and development have otherwise been marginalized and excluded (Elliott & Stead, 2008; Leberman, 2017). Therefore, as a shift in emphasizing the leader and leadership development of women and girls continues, such a shift makes our study for women's leader development ripe for research. For example, Ernst Young (EY) and espnW (2015) reported of executive women attributing their success to sport participation, further underlining the importance to continue to explore this area of research and leader development that women experience through and around sport. Namely, it is important to understand how women intercollegiate student-athletes develop into leaders during daily, micro-moments, including interactions with their leaders and peers.

Avolio and Vogelgesang-Lester (2011) noted much of the leader development literature focused on large interventions, which may miss significant developmental moments that occur in individuals' day-to-day lives. Micro-moments are defined as both commonplace (e.g., daily) and dynamic (i.e., creative or unplanned) opportunities for development of leadership skills and practices (Beghetto, 2015). Beghetto (2015) argued these times provide leaders the greatest opportunity to reinforce or change their legacies through their behaviors; paradoxically, micro-moments are defining moments for a leader. Similarly, Stokes and Harris (2012) highlighted that how one behaves in micro-moments is important to successful organizational change, corporate responsibility, and overall ethics.

Beghetto (2015) highlighted the need for increased study of micro-moments to understand the process of leader development. For intercollegiate athletes, who often have myriad responsibilities and roles, there are several potential micro-moments for leader development worth exploring. Given the paucity of sport-related research directly addressing how National Collegiate Athletic Association (NCAA) women student-athletes develop into leaders, the purpose of this study seeks to determine how women student-athletes develop into leaders through micro-moments and daily interactions with others (i.e., leaders, peers). Through a case study approach, the current study provides a foundation for further student-athlete leader development research in sport as well as general leader development research across contexts.

Conceptual Framework

To form our conceptual framework, we drew from literature related to leader development and the social construction of leadership, as well as leadership and leader development for women in sport. Leader development is often described as the development of individual leaders, with a focus on intrapersonal capabilities related to individual knowledge, skill development, self-awareness, and emotional intelligence (Day, 2000; Iles & Preece, 2006). Compared to leadership development, which focuses on social capital, network building, and interpersonal relationship skills development within the process of leadership; leader development instead focuses on intrapersonal and human capital skill development (Day 2000; Day et al., 2014; Iles & Preece, 2006). Day (2000) argued in support of the notion that when researchers examine how one develops into a leader, the individual's experiences are of utmost importance (Bettein & Kennedy, 1990; Day et al., 2014). Experiences can span one's journey in their professional life, reconciling their personal and professional lives, and socializing or interacting with others around them and how the individual reflects on such interactions to change or not change aspects of their professional or personal life (Day, 2000). These experiences one possesses can influence their development into a leader, however, such experiences are not simply limited to major moments or conventions on developing oneself. Thus, underlining the importance to uncovering micro-moments of leader development that can take place daily and without the fanfare of going to a leader development retreat or similar outing.

Leader Development

Leader development is distinguished by the inherent emphasis on individual or intrapersonal-level development involving one's experience and reflection on experiences, skill development, and one's personality (Day et al., 2014). Despite each aspect of leader development possessing standalone value, researchers have found it best to incorporate all aspects when examining leader development (Day et al., 2014; Mumford et al., 2007). For example, a leader's experiences – namely length of experiences and how many experiences – relate to how high up an organization's hierarchy a leader can reasonably progress towards or hold a formal position (Hirst et al., 2004; Mumford et al., 2007). However, to encapsulate the leader develop-

ment process more fully, it is important to link a leader's learning experience (Hirst et al., 2004) with their advancement within an organization as higher-level leader positions require greater strategic and business skill development (Mumford et al., 2007), which can be foreshadowed by a leader's previous learning experience related to strategic skills. This illustrates the importance of examining all aspects of leader development (Bettin & Kennedy, 1990).

Bettin and Kennedy (1990) illustrated that time and experience are mutually exclusive, with experience not time, as a significant predictor of performance among United States Army Captains who had similar tenure of service. Additionally, researchers have posited that activity related experience among early-aged adults is more formative in leader development than activity related experience as adults (Zacharatos et al., 2000). Zacharatos et al. (2000) revealed early aged adults (i.e., typical college-aged adults) were developing their own transformational leader behaviors when their parents and those around them exhibited such behaviors. Further, Ericsson (2008) differentiated between how general experience related to performance had a weak correlation, yet deliberate practice as *focused* experience on improving specific skills led to expert performance. Skills and tasks related to leader development that can be engaged in deliberate practice stand to reason, then to further help contextualize what leader development through micro-moments can entail. The above research illustrates the appropriateness and need to examine leader development among those early-aged adults including women NCAA student-athletes.

In addition to experience and skill development, leader development also incorporates the personality of the leader as well as an emphasis on self-development (Day et al., 2014). Strang and Kuhnert (2009) found when a leader possessed the personality trait of conscientiousness, this trait positively influenced leader performance when assessed by peers, followers, and superiors. As for self-development, Boyce et al. (2010) illustrated certain personality characteristics predict a one's engagement in self-development activities: work orientation (commitment to one's job and organization); mastery orientation (an emphasis on intellectual maturity, openness to experiences, and self-efficacy); and career-growth orientation (those who seek out feedback from others, a curiosity towards future career paths). Additionally, Duckworth and Quinn (2009) found their concept of grit or one's trait aptitude for persevering towards long-term goals significantly influenced skill and career outcomes and growth. In their work, Duckworth and Quinn (2009) discovered that when measuring grit among adults it had significant influence on their educational attainment and fewer career changes, meaning that adults were more likely to be successful in their initial career and would not need to change careers as often as their counterparts who were low in grit. Thus, further illustrating that one's leader development related to mastery development, grit, and career-growth orientation are relationships to further understand in the women NCAA student-athlete context since these student-athletes could be set up for significant success after college depending on the development level of these skills.

Despite a foundation based in various aspects of leader development, the above research lacks an emphasis or understanding of the exact micro-moments of leader

development. While a few studies have emphasized a leader's experience and potential to reflect on experiences (Bettin & Kennedy, 1990; Day et al., 2014; Mumford et al., 2007), an emphasis on the micro-moments of development is missing. Further, as Damon et al. (2022) noted; in sport leadership research there is greater understanding to be gained by focusing on what the leader development process entails for followers or those who are not in formal leadership positions. Given the fact that early-aged adults are already in the prime age range for developing their own leader behaviors (Zacharatos et al., 2000), studying leader development of women NCAA student-athletes and what micro-moments aid in their development can help to inform how women in sport can develop their leader capabilities and skills. However, little is known about what the process is or what role micro-moments have in leader development in sport and for women in sport. Therefore, a potentially important aspect of the women NCAA student-athlete leader development process is mostly missing from the student-athlete development literature and sport management leadership literature (Ferkins et al., 2018; Welty Peachey et al., 2015). Additionally, as Chalfin et al. (2015) found, leader experience of student-athletes played a significant role in how potential employers valued a student-athlete's athletic participation as it relates to being skilled and a potentially successful employee. This further underlines the importance of uncovering greater understanding of student-athletes' leader development.

Social Construction of Leadership and Leader Development

Ferkins et al. (2018) highlighted a shift in sport leadership research away from the leader-centric focus and towards a more leader development perspective. There is a greater emphasis on leadership theories focused on including followers, and developing leaders to create a better tomorrow, such as authentic and servant leadership (Ferkins et al., 2018; Welty Peachey et al., 2015). The integration of these two leadership theories has helped give rise to greater scholarly attention on the social construction of leadership (Billsberry et al., 2018; Dee et al. 2018) and provides further evidence of the shift toward a more developmental focus.

Arguably, the social construction of leadership further takes into consideration the reality and perception of the individual or observer (Billsberry et al., 2018); however, social construction still does not fully address *how* leaders develop or what micro-moments aid in leader development. In sport, the social construction of leadership paradigm views leadership as an experience based on interactions and formations of people through shared experiences (Ferkins et al., 2018; Ospina & Foldy, 2009). Often these shared experiences are most effective in creating the social construction of leadership when a formal leader in a group does not exist (Ferkins et al., 2018) or when anyone in a group can potentially step up to lead the group through a particular situation. Additionally, at the root of social construction of leadership is that anyone in a group can perceive anyone else as a leader. To this point, gaining feedback or insights into how one perceives another in the group to be developing or have developed as a leader, builds off the perception focus of socially constructed leadership. If anyone can be perceived as leader, then anyone perceiving a specific

person as a leader would then also be able to offer perspective on how that person develops as a leader. This can then provide a 360-degrees view of insights towards one's leader development when that person's leaders (i.e., supervisor or coach), peers, and followers detail how that person has developed into a leader or continues to do so. Therefore, understanding of the interactions between leader and follower, and peer-to-peer needs to be greater, especially on the type, quality, and quantity of interactions. Such interactions are representative of potential micro-moments of development that are otherwise missed in large intervention- based leadership research (Avolio & Vogelgesang-Lester, 2011).

Lacking in the current research stream is an exploration of how a leader develops through micro-moments, along with identification of these micro-moments of development. Leader development research has been slow to progress due to the complexity of trying to merge two complicated constructs (leadership and development) into one (Day & Sin, 2011). We believe that incorporating the social construction of leadership paradigm and an emphasis on micro-moments of development can aid in advancing the leader development research, particularly as it pertains to how women NCAA student-athletes develop into leaders.

Leadership and Leader Development for Women in Sport

Leaders in many contexts, especially in male-prevalent positions and cultures like sport, have been influenced by gender-appropriate behaviors, expectations, and representation expectations (see Burton, 2015; Eagly, 2007; Schull, 2016), so it is important to note girls and boys have learned to lead in different ways (Hoyt & Johnson, 2011), and society expects them to behave accordingly in their leadership roles (Eagly, 2007). However, research on leader and leadership development of young women has only recently garnered attention (Rorem & Bajaj, 2012; Leberman, 2017), and the focus has been on youth sports and sport participation (see EY & espnW, 2015; Leberman, 2017;).

Stevenson's (2010) research revealed women who played high school sports earned more when they entered the workforce and had developed valued attributes like teamwork, communication, assertiveness, competitiveness, and discipline. Additionally, EY and espnW (2015) highlighted the value of sport participation for C-suite executive women. Although sport participation has been a tool for developing leader skills (see Leberman, 2017), particularly building confidence, increasing self-esteem, fostering positive health behavior, and physical activity for women (Barr-Anderson et al., 2012; Taylor, 2014), simply being an athlete and participating in sport does not translate into leadership (Extejt & Smith, 2009), so it is necessary to provide opportunities to develop and exercise being a leader (Gould & Voelker, 2012).

Addressing the gap in understanding women NCAA student-athlete leader development can advance the understanding of micro-moments' role in the leader development process. As such, and drawn from the leader development and social construction leadership literature above, the following research questions were developed to guide the current study:

RQ1: What micro-moments impact women student-athlete leader development in the context of NCAA Division III sport?
RQ2: How do women student-athletes perceive the relationship between micro-moments and leader development in the context of NCAA Division III sport?

Method

To address both research questions, a case study method was implemented to understand the complex phenomenon of micro-moments and leader development. Given that case study methodology involves examining a real-life setting to help provide in-depth exploration of a bounded system (i.e., case) over time through various data collections (Creswell, 2012; Merriam & Tisdell, 2015; Yin, 2013), we believed this to be the most appropriate approach to allowing the rich data to reach its full impact. Further, recent sport leadership research has successfully implemented a case study methodology (O'Boyle et al., 2023), illustrating the value of a case study approach in the sport leadership area to help create enhanced understanding and insights in a specific context. In the current case study, we aimed to enhance the understanding and insights of women student-athletes' leader development through micro-moments and the dynamic, complex nature of such development. The main source of data were semi-structured interviews with women student-athletes and head coaches of two NCAA Division III teams. Given the current research was aimed at uncovering what micro-moments impacted women student-athlete leader development and how they perceive the micro-moments in their leader development journey, the case study approach with in-depth interviews of women student-athletes and their coaches was determined to be the most appropriate way to gather the necessary information. To further enrich the data in our case, we included observations of the two teams during practice as well as during each of their respective leadership council meetings. Direct observations were included to holistically see interactions of as many participants as possible across a variety of team contexts that they may be involved in (i.e., leadership council meetings and practices) as opposed to only one context, such as practice, meetings, or games. Although each team had defined positions of leadership in the head coach, the assistant coach, and team captains, we did not assign any of the remaining participants to be a follower or leader in the spirit of the social construction of leadership to allow for participants to determine who a leader was (including whether they themselves were a leader), or if they believed anyone was a leader (Ferkins et al., 2018).

Setting and Instrumentation

Using a purposive sampling technique to help address the lack of focus on women leadership development (Leberman, 2017), two women's intercollegiate athletic teams at a NCAA Division III university in the southern part of the United States (US) were chosen for the current study. One team was a soccer team and the other was a lacrosse team. All players interviewed identified as women, as did the lacrosse

head coach, and only the soccer team's head coach identified was a man. We interviewed and observed each head coach and the players, while also including the assistant coach of each team in the observations. However, the assistant coach for the lacrosse team left mid-season before we could interview her, and the assistant soccer coach was unable to be scheduled for an interview due to time conflicts. In addition to the typical team structure of a head coach, assistant coach, and team captains, both teams happened to also have a leadership council, which consisted of the coaches and team-elected player representatives. The leadership council meetings were observed regularly to enrich the context of the current study through another potential context through which development may occur. Leadership council duties included communicating non-game related information to the rest of the team (such as team events outside of practices and games), and relaying information from other players on the team to coaches (such as attitude issues, players losing focus, and cliques forming). Both head coaches wanted leadership councils on their teams to offer another leadership experience avenue to players who may not be elected as a team captain but would still serve the team in these other leadership capacities. While not an intended emphasis of the study at the outset, the leadership council context added supplemental data that enriched the entire case study of both teams.

Data Collection

Data were collected during each team's practices and leadership council meetings throughout their respective seasons. Qualitative interviews were conducted by two of the authors during team practices and lasted between 20 and 35 minutes each. All team members had an opportunity to be interviewed. We determined the best approach to conducting the interviews was to include a multilevel view (i.e., coaches, leadership council members, team captains, and regular players) to offer a robust depiction of each participant's development and role in developing others. Further, this approach allowed us to determine whether participants viewed any fellow participants as leaders. A multilevel interview also helped to guard against a participant (e.g., coaches) inflating anyone's own (e.g., a favorite player of the coach) development and leadership skills. We instituted a multilevel or 360-degree interview, which encompassed a supervisor in each head coach as well as team captains for those who were not in a leadership position while also offering the peer level to be included (i.e., captain to captain, player to player) and the follower to leader level (i.e., player or captain to coach, player to captain). The 360-degree interview, which involves interviewing the person or level of interest as well as their supervisor and peers has been used in corporate coaching research (Lawler, 2011). Additionally, such a multilevel feedback process involving one's own interview, the interview of a supervisor, and the interview of a peer has proved beneficial in education leadership research (Feldhoff et al., 2014) as a natural way to highlight how leadership contexts continue to be co-constructed by leaders and followers (Ferkins et al., 2018; Spillane, 2006). In total, we conducted 30 semi-structured interviews; 15 student-athletes, and the head coach from soccer, and 13 student-athletes, and the head coach from lacrosse.

Institutional Review Board (IRB) approval for the study was granted and allowed for the interviews to be audio recorded as well as for the observations to take place.

Participants

All participants were women, with the exception of one male coach. Student-athlete ages ranged from 18-22 years old, the years in school ranged from freshman (6), sophomore (6), junior (8), to senior (8). Coaches' ages are withheld to maintain confidentiality. A majority of the 30 participants (n = 25) identified as White, followed by three Black/ African American participants, and two Asian-American participants. All names listed are pseudonyms, to further ensure confidentiality.

We constructed an interview guide informed by leader development and social construction of leadership theory and literature (Day & Sin, 2011; Ferkins et al., 2018). Sample interview questions included "Do you want to become a leader?"; "What does becoming a leader mean to you?"; "Do you feel as though there are any specific interactions, incidents, or routines that have contributed to your development as a leader? If so, what are they?"; "What are your perceptions of the coaching staff's ability to develop you and your teammates as leaders?"; and "Do you perceive that anyone on the team has developed as a leader? If so, how have they developed as a leader?" The coaches were asked the same questions with only minor word adjustments when appropriate, such as: "What are your perceptions of the players' ability to develop their teammates as leaders?"

The two authors who conducted the interviews also conducted observations during practices and the leadership council meetings throughout each team's season to observe interactions for additional leader development moments. Direct observation was completed at 12 practice sessions, each lasting approximately 30 minutes for a total of six observation hours, with field notes recorded at each observation. We also observed six leadership council meetings, with each meeting lasting 60 minutes. Field notes were compared and a debriefing session (Creswell, 2012) took place between observers to ensure reliability and accuracy of field notes. Consent for observations was gained through each of the coaches, with each player verbally consenting before the start of each practice or meeting.

Data Analysis

After transcriptions were transcribed by hand by the same authors who conducted the interviews and observations, the data analysis process began for the interview transcriptions and obvservations' field notes. The first step of coding consisted of the same two authors who conducted interviews and observations to code the same transcription independently for common words, phrases, and themes related to micro-moments and leader development (Creswell, 2012; Merriam & Tisdell, 2015). After coding the first interview, the two authors then compared their coding and interpretations. Both authors demonstrated similar initial codes of 14 and 16 each, with slightly different wording for a code that held the same meaning across the authors for example, peer-to-peer interactions and peer influence held the same meaning to

each respective author as their way to describe the peer-level interactions that influenced one's leader development. Consensus was arrived at during this second comparison with only minor semantics (i.e., communication skills versus learning better communication) used to describe the same passage. Through discussion the authors arrived at the consensus 12 codes to be used. After this consensus was gained on the first interview, the same authors coded another (same) interview independently and then compared their codes and meanings a second time. After the success of being able to arrive at consensus after this interview, the authors went about coding the remaining interviews independently, splitting the interviews while following these initial groupings. The same approach was used when coding the observation data as the authors coded one date's observation notes independently at the same time of the first interview being coded. Observational data included instances of the same groupings from the transcriptions, such as different women student-athletes taking the lead and being vocal in different team settings (i.e., practice, leadership council meetings, post-practice or game meetings). In following with the case study methodology, we took the resulting 12 groupings or subthemes and through axial coding (Creswell, 2012; O'Boyle et al., 2023) had three major themes emerge: empowerment, modeling leadership, and peer-to-peer leadership. The subthemes and themes can be found in Table 1. While the coding process was inductive by nature, we were able to link the major themes to the leader development literature and social construction of leadership scholarship (e.g., Billsberry et al., 2018; Gardner et al., 2005; van Dierendonck, 2011) while also recognizing that many of the interactions and reflections noted by the participants represented micro-moments. Though Table 1 is meant to help organize the themes and subthemes, through the coding process as is often the situation for case study research, we saw overlap of a subtheme potentially relating to more than one main theme. This is noted in the findings section when appropriate.

Lastly, member checks with interviewees were conducted to verify accuracy of the transcripts and to confirm study interpretations (Lincoln & Guba, 1985). Study participants generally agreed with our interpretations and only had minor grammatical changes to their transcripts. Trustworthiness and credibility were ensured with two of the authors constantly comparing their interpretations throughout the coding process, and by testing interpretations with a third reviewer who was not involved in data collection but has theoretical background in the research topic (Lincoln & Guba, 1985).

Findings

Below, we present the findings related to both research questions, which aimed to identify participant perceptions of the micro-moments of leader development and examined participant perceptions on how micro-moments develop leaders. Three themes emerged: empowerment, modeling leadership, and peer-to-peer leadership. Each theme is detailed below along with supporting quotes and observations.

Table 1. Subthemes, major themes

Subthemes	Themes
Opportunities to grow as a leader	Empowerment
Interactions with the leader	
Experience	
Reflection on their development	
How not to be a leader	
Experience and familiarity with the sport	Modeling leadership
Communication skills	
Servant and authentic leadership	
Relatability	
Peer-to-peer interactions	Peer-to-peer leadership
Support for one another	
Peer leaders' approachability	

Empowerment

Participants spoke about the importance of existing leaders facilitating their personal development into leaders. All 30 participants talked about empowerment, and our direct observations corroborated the theme's importance as a micro-moment of leader development. Empowerment emerged from each team, and from players and coaches alike. We present the findings related to empowerment through connecting the subthemes that composed it as a major theme. Day et al. (2014) and Hirst et al. (2004) noted how one's experience and skill development during the process of gaining experience is integral in one's leader development. In the current study, Emily, a soccer player, noted her and her teammates' opportunities to grow as a leader as an important experience when she mentioned "we get to figure out what went wrong, and own the solution. He's (Coach Mark) there to make sure we get it eventually." At practice we observed specific examples of participants taking action when given opportunities to grow as a leader, such as when Coach Mark asked the team to give him an evaluation of how they played during a weekend along with an action plan on how to address issues. Coach Mark then allowed the team's action plan to become that day's practice plan. Participants were able to essentially be coach or leader for a day and critique their own performance while constructing a plan to address weaknesses in their performance. Similar opportunities were evident on the lacrosse team.

For example, Heather noted "we were able to go to Coach Leigh with ideas for practice plans and justify how the plan would help us address what we needed to work on based on our recent games." Heather went on to mention how Coach Leigh "was more impressed or concerned with *why* we believed we needed to do certain drills or practice plays because she knew then that we were growing and not just picking easy or fun drills." The participants illustrated development into a leader through their actions when they were given the opportunity to act as a leader. As Day et al. (2014) mentioned related to experience in the leader development process, part of the experience included learning experience with a leader. This proved to be important in our study such that Emma (soccer) noted:

> I also think it helps that coach texts me all the time, calls me into the office to watch film, so that when I am on the field, I know that I'm going to give correct instructions . . . because it's coming from those interactions and coming from him.

We later observed Emma give instructions and encouragement from the sidelines during practices, even when she was injured. Darcy (soccer) perceived interactions with the Coach Mark to help her own development as she mentioned she learned how to interact with people on a higher level (i.e., as a leader's peer). Specifically, Darcy noted: "Learning how to interact with people on the same level, because they're older than me. Speaking to him and people like him, our assistant coach, our leadership council, was important because that's what you're going to do outside of soccer."

Further, we saw experience correspond to empowerment which tended to be related to those participants who were more tenured or had been playing the sport for several years. As Hirst and colleagues (2004) found, one's length of experiences can strongly contribute to how high up an individual can climb in a group's hierarchy. Those participants who had already gone through experiences such as opportunities to grow as a leader, had been playing longer, and were more vocal took charge during specific drills. For example, Ina (soccer) perceived that she will be better equipped to lead in future seasons because of the experience she gained: "I will be able to step up and lead next year for sure because of my experiences with the team in my first couple of years here." Additionally, we observed Julie, a senior and team captain, who was on both teams, enact a vocal approach to keep them on task. During soccer, Julie would often be the most vocal player during a team huddle while in a timeout. Julie mentioned how her experience playing both sports in college gave her confidence to be a leader in her next steps in life:

> I know that when I go to work or grad school, now I can lead there too because I came in and led these teams. I didn't know everyone when I started, and it will be the same at work or in a grad program. I feel confident that I can keep leading myself and leading others even when I'm not playing a sport anymore.

While we analyzed the data, it was evident that many aspects of empowerment were intertwined, including reflection on their development. Recent research has even noted how important reflection and reflexivity in reflection can be for both a research

process and development process (Damon et al., 2022). Ashley (lacrosse) represented how reflection on their development and experience interacted when she stated: "When I first got here, I was new, I was shy, and now I'm not as shy, I'm more comfortable with everyone, I'm experienced and it's easier to speak up." Further, Coach Leigh shared how she set out to give her team more opportunities to grow as leaders and gain experience: "This year I did more to push it back on them for ownership." She elaborated on an instance where a game did not go well, and she asked the team to reflect on its performance, and reflect on their development*:* "Here's everything I did to prep you for the game, did everyone understand?" When the team replied in the affirmative, Coach Leigh then put the onus on her team to come up with a solution: "I just turned it back on them, and said okay you all understood, you're all saying I did my job, I can't fix this so where are [we] going to go from here?" Coach Leigh concluded her message with "they have to take ownership and understand that it's their program as much as it is my program." Thus, Coach Leigh gave her players opportunities to grow through their interactions with the leader, by reflecting on their development or performance and co-creating future plans.

We also found that while most participants spoke to wanting to become a leader (80% indicated desires to be a leader), a few did not. Those who did not wish to be leaders reflected on their role(s) in interviews. For example, Sandra (soccer) did not perceive herself as a leader: "I don't necessarily see myself as a huge leader on the team or that I want to. Wherever I'm needed, that's where I go, I just do my job." While it was surprising to hear participants admit that they did not desire to be a formal leader, with the backdrop of both social construction of leadership (Billsberry et al., 2018) allowing them to still potentially be perceived as a leader by someone, along with these being young age-adults who are growing in their self-awareness of leader development (Zacharatos et al., 2000), we recognize that there was still evidence of *some* development overall and micro-moments allowed for such self-development. An interesting aspect to emerge from the data was when participants spoke on previous leaders that they did not want to emulate as their illustration of how not to be a leader. While each of the participants spoke to this in some fashion, some pointed to a previous coach or compared two current coaches. Specifically, Payton (lacrosse) mentioned how "my field hockey coach . . . helps to create cliques among everyone there (on the field hockey team). Coach Leigh doesn't create a bad culture like (she) does with field hockey. I try to be like Coach Leigh."

Other participants on the soccer team spoke to how Coach Mark evolved as a leader, from one whom they once were not sure they wanted to follow to the leader he is now. Riley explained her perception: "When he first got here, it was a shock. He micromanaged everything and had a short temper with us. I didn't think I would keep playing if Coach was like this every year." Riley then mentioned the perceived change in Coach Mark throughout the last couple of seasons:

> It is night and day with how he communicates more effectively with us, and he trusts us more. I think he realized after being here for a couple of seasons that his system was in place and he did not have to micromanage us.

Thus, overall, empowerment was perceived as a micro-moment process that aided

an individual's development into a leader by providing that individual the necessary opportunities to gain leadership experience.

Modeling Leadership

Twenty-eight of the 30 participants perceived modeling leadership as being a critical micro-moment in leader development. More specifically, modeling leadership was often various micro-moments for participants. Similar to empowerment, modeling leadership also related to experience.

As noted earlier, some of the participants played multiple sports, which added a comparison aspect to their reflections as well as additional experience to their empowerment and ability to reflect on their development (Day et al., 2014). Modeling leadership also took on a different perspective towards experience as it related to the players' assessing a coach's experience with a sport and whether that imbued the player to integrate the coach's experience and knowledge into their own. Allie noted differences between Coach Leigh and her field hockey coach when she mentioned Coach Leigh's experience and familiarity with the sport*:* "Coach Leigh knows so much about the game. She's a better fit as coach. She's even better (at lacrosse) than my field hockey coach is at field hockey." Further, we observed each head coach rely on his or her experience and familiarity with the sport throughout practices, specifically when Coach Mark or Coach Leigh would stop the team during a drill or scrimmage to breakdown why what they were practicing was important to being successful in soccer and lacrosse, respectively. When leaders explained the purpose behind a part of practice, they aided their players' development by illustrating their own experience and familiarity with the sport, while also enhancing the trust that players had in their coaches' experience and knowledge.

Beyond observing each coach use his or her experience and familiarity during practice, participants also spoke about the passion each coach had for the sport, and how this passion was evident when the coach would speak. For example, Beth (soccer) explained her perception of how Coach Mark's years of soccer experience showed when he would talk with the team formally (during practices and games) and informally (outside of the practices and games): "Coach has a passion for soccer that you notice when he speaks. Whether it's about our games or about the National team, it's evident that he's in tune with soccer. I think he lives it and breathes it."

Next to lend itself towards modeling leadership were communication skills. Communication skills were often intertwined with the previous experience and familiarity with the sport subtheme. Emma (soccer) pointed to the new assistant coach's (Sarah) experience and familiarity with the sport and her communication skills:

> Coach Sarah *knows* what she is talking about. She says things in a way you can understand, and she gives an example of how to implement it on the field. The assistant last year, I didn't really respect her leadership or communication.

Emma believed she was developing with Coach Sarah because of her experience as a soccer player and how she communicated with Emma. Emma did not feel that

she developed as a leader with the previous assistant coach, sharing that she would not even adhere to what that coach had to say at times. Additionally, communication skills were evident among leadership council members. Specifically, Pam (soccer) mentioned how one of the soccer team's leadership council member's (Blakely) communication skills changed over time and perceived this change to represent Blakely's leader development. Pam shared: "Last year Blakely was so aggressive, I never asked her anything. I was worried about her being a leader this year, but she has turned it around. She works so hard in practice and is always encouraging everyone." Pam further punctuated Blakely's development through her communication skills when highlighting how "Blakely now talks so much more respectfully to everyone and is welcoming. She realized she's a leader now, and that she has responsibilities to her team, not just herself."

While authentic and servant leadership were intertwined with one another, one of the common threads connecting these two in our study was the personality trait of conscientiousness, a previously found important trait of being positively assessed as a leader by one's own leaders, peers, and followers (Strang & Kuhnert, 2009). The interview data and observations illustrated study participants perceived that both head coaches exhibited aspects of authentic and servant leadership styles, namely relational transparency, stewardship, and self-awareness (Gardner et al., 2005; van Dierendonck, 2011). These traits of each leadership style were perceived as manifesting in a few ways, such as stewardship when each leader always started off the leadership council meetings by asking how each member was doing that day in school, in their personal life, and if they had any issues they needed to speak on. Doing so helped participants know that their leader cared about them and their development beyond the sport; often encouraging development in other areas besides sport. While working with Coach Leigh on her honors leadership project, Penny shared: "I had never thought about grad school, but Coach told me I could go for an MBA to get into business. She helped me layout a plan on how to get extra experience and when to apply."

Coach Leigh had a 'no questions asked' mental health day that each player was allotted whenever she needed a break from practice, and Coach Leigh also shared how "I want to create people who can think critically." As for self-awareness and addressing their own weaknesses as a leader, Coach Mark specifically noted: "I always felt that having an assistant coach, especially one who played on the team at some point would help me convey how I care and relate to the team more than I could on my own as a male." Further, relational transparency came through when Leigh mentioned, "I try to be open and communicative, and open and transparent with my team." We confirmed that the followers believed Coach Leigh accomplished transparency as Ashley believed "she's very good at taking into account what we have to say and making sure everyone has a voice."

Lastly, relatability was another important part of modeling leadership. Relatability helped players believe they were on a similar leader development path as their coach or peers they perceived as a leader since their leader could relate to what players were experiencing. Julie (soccer and lacrosse) highlighted a difference she per-

ceived between the two coach's relatability: "I can go to Coach Leigh about anything and feel comfortable. I like Coach Mark, he's helped me a lot with soccer . . . but personal life, I ask her since she's been in our shoes as a female college athlete." Coach Mark recognized he may have a relatability shortcoming and attempted to address the shortcoming with his hiring of a former player (i.e., female) as an assistant coach. Overall, participants then wished to emulate their leaders, as Allie noted: "Coach Leigh is someone I want to be like. If I were to coach one day, or in general life be a leader, I want to be like her." The modeling leadership theme as a micro-moment demonstrated how participants perceived that they were aided in their leader development when a leader has related sport experience, enacts positive communication skills, embodies aspects of a servant and authentic leader, and illustrates relatability.

Peer-to-peer Leadership

The final theme to emerge from the data was the perceived importance of peer-to-peer leadership as a micro-moment of leader development. Specifically, peers were perceived as helping create a support network for participants to lean on while developing into leaders. Most participants (n = 25) mentioned an aspect of peer-to-peer leadership during their interviews. However, most younger participants (freshman) did not make note of this theme. Peer-to-peer leadership allowed players to feel comfortable around one another and express their authentic selves, while also building a welcoming culture – similar aspects to authentic and servant leadership as noted in the modeling leadership theme.

The foundational aspect of peer-to-peer leadership were peer-to-peer interactions, which referred to participants interacting with each other both outside of the sport setting and inside of it. Ina (soccer) shared her perception of the difference in the leadership council members from year one to year two as it related to creating a welcoming environment to foster development. She specifically mentioned the difference led to deeper peer-to-peer interactions and manifested greater confidence: "Outside of soccer . . . you're like, wow this person is a lot like me, and look at what they can do on the field, I can do that, too."

Additionally, Ashley (lacrosse) noted peer-to-peer interactions with leadership council members helped her realize that she could become a leader, an early step in the development process. Through interacting with one specific leadership council member, Ashley was able set a goal to become a leader (as she perceived a leader to be) and understand how to achieve her goal. She recalled Brittany (leadership council member) as being "the first person I actually knew to tell me people respect you, and she was the first person who taught me to be a leader and to believe that I could be a leader." In addition, we were able to observe Payton and Allie, who both played on the lacrosse team and the field hockey team, bond during warmups at lacrosse practice. Specifically, Payton and Allie performed warmup drills together, with one waiting for the other at the beginning of practice so they were not alone during drills. They also offered encouragement and support to each other in regard to their progress in learning lacrosse.

Building off the peer-to-peer interactions, there was evidence of a specific type of valued interaction among participants. We observed participants on both teams offer support for one another. This was evident as players offered encouragement on the sidelines during practices, as well as support for one another's ideas during the leadership council meetings. For example, during the third lacrosse leadership council meeting, Jesse offered Kate support not only for her pregame warmup routine idea, but also for her play on the field as Kate had demonstrated negative self-talk during that meeting. We later asked Jesse about this specific interaction, and she replied: "I know Kate would have done the same for me, and she has done the same. I've seen her grow a lot as a person and player and didn't want her believing otherwise." The above interaction illustrates how perceived support for one another can aid in keeping the leader development process moving forward positively, for both an individual and a group. Further, this also sheds light on the role of socially constructing leadership in the leader development process during specific micro-moments. Jesse and Kate needed to have perceived one another as a leader in order to have the micro-moment of support and encouragement in the first place.

Support for one another was also evident when participants recognized not all of their peers had played the sport before, and provided support for those who were simultaneously trying to learn a new sport while competing at the intercollegiate level. Bridget (lacrosse) specifically discussed supporting her teammates who had not played lacrosse before but joined the team in college:

> I think you have to put yourself in their shoes, because if I were to just pick up a sport that I never played, like basketball or something, I would have no idea what to do…I have a lot of respect for what they're doing.

We often observed Bridget interacting with the new lacrosse players on the sidelines, many times before she would interact with players who had experience playing lacrosse prior to college.

Lastly, peer leaders' approachability played a key role in determining the quality and frequency of peer-to-peer interactions, and thus peer-to-peer leadership. Ina (soccer) once again spoke to this aspect as she perceived leadership council members to be more approachable in year two compared to year one: "We didn't have nearly as welcoming of a group (leadership council) last year when it was basically one girl running everything. This year everyone can speak, and everyone is heard!" In addition, the lacrosse players emulated Coach Leigh by allowing everyone to have a voice through peer leaders' approachability, as Raegan (lacrosse) stated: "It's the support for one another that lets us take risks or express our own voices. I think we have all grown into leaders by being able to find our own voice through that support. No one's voice is diminished." Raegan's quote particularly highlights the possibility that anyone can be perceived as a leader, a premise found in the social construction of leadership literature (Billsberry et al., 2018). In addition, we observed 18 instances across both teams where a participant approached another, more senior, participant to get help with a skill. Often this would lead to at least the two participants, if not more, staying after practice to perform their own drills. Julie highlighted the

importance of these sessions: “I realized they wanted to get better and believed that I could help. We really bonded during those extra sessions.” These sessions demonstrated another application of support through peer leader’s approachability.

Overall, the qualitative data and observations answered our two research questions. We identified the perceived micro-moments of leader development to be the daily interactions, decisions, and reflections among leaders and participants. These moments happened during leadership council meetings, practice, and other interactions between peers reflected on by the participants outside of the sport. The development through the micro-moments revolved around empowerment of participants, modeling leadership, and peer-to-peer leadership interactions. Next, we discuss the findings, illustrate theoretical and practical implications, and note limitations and future research directions.

Discussion

The purpose of this case study was to determine how women intercollegiate student-athletes develop into leaders through micro-moments. We constructed two research questions to guide our study: what micro-moments impact women NCAA student-athlete leader development in the context of sport (RQ1)? and how do women NCAA student-athletes perceive the relationship between micro-moments and leader development in the context of sport (RQ2)? Research question one was answered through the three major themes of empowerment of women student-athletes, modeling leadership around women student-athletes, and reflecting on the peer-to-peer leadership provided from woman student-athlete to woman student-athlete. Research question two was answered as participants reflected on specific micro-moment interactions and opportunities to lead and the experience gained as the key relationship between those micro-moments and crediting them for their own leader development.

Overall, RQ1 and RQ2 were answered through three themes that emerged from the qualitative and observational data: empowerment, modeling leadership, and peer-to-peer leadership. First, the concept of empowerment here accurately reflects how empowerment has been described in literature related to servant leadership and follower development (Conger, 2004; van Dierendonck, 2011). The constant micro-moment of potential empowerment allowed participants to flourish in contexts that best suited their leader development level and overall personality traits. For example, as noted earlier, Ina (soccer) and Ashley (lacrosse) reflected on their own growth in confidence to be a leader in the future whether it was in lacrosse or in other contexts of their lives, thanks to being empowered consistently to gain leader experience through their sport participation. Next, the identified micro-moment of modeling leadership is done constantly, whether intended or not and whether in a positive or negative way. While several participants noted key examples of how they do not wish to develop as a leader based on seeing poor leadership being modeled around them, some, such as Ashley (lacrosse) took the role to model leadership to others seriously. She noted “when I am leading, I am not leading the whole team

and I'm okay with that. If somebody needs my help, I can help them and be a role model to that person." Finally, in similar fashion to modeling leadership being a near constant micro-moment, peer-to-peer leadership as a micro-moment of development was identified to answer RQ1 while also providing strong evidence for RQ2 as evidence of the relationship between micro-moments and leader development. For example, Riley (soccer) noted how "it's more important for the people around you to have success than yourself. If I am a boss, I would want to make sure my employees were successful first." Riley's statement not only points to the emphasis on how to lead one's peers but also how to continue to lead others even when a formal leadership position has been attained. Further, her statement identifies the conscientiousness trait mentioned by Strang and Kuhnert (2009) as an underlining current to the micro-moment of peer-to-peer leadership. Through Riley's desire to set up those around her for success, this interaction and leadership micro-moment sets her up for positive feedback from those around her, enhancing her leader development and reaffirming it being on the correct path.

The micro-moments occurred through a mix of both intentional and organic avenues. The leadership councils designed by both coaches are examples of intentional efforts to create space and opportunities for others besides team captains to potentially develop as a leader. Within this intentional micro-moment effort, through authentic leadership, the coaches and student-athletes recognized what their own strengths and weaknesses were and how to supplement the decision-making process or actions through allowing those whose strengths filled their own weakness to step in, particularly in different contexts. For example, Lily (soccer, sophomore) did not speak unless directly spoken to during the leadership council meetings, a weakness of speaking up in front of her peers in a close context. However, when she was on the field during practice, Lily was one of the most vocal people on the field as she communicated directions and called out coverages to her teammates, illustrating a clear strength for recognizing game situations and confident to communicate them in this context. However, she noted that if it were not for interacting with more peers and the coaches directly through the leadership council context, she may not have developed enough to exhibit her own leadership on the field. In addition to the intentional avenues of micro-moments, organic micro-moments also existed and were developed. While hanging out as a team outside of the sport functions had intentional design, the unknown nature of how peer-to-peer interactions and leadership during those unstructured times lends them to organic micro-moments. Similar to the quote mentioned earlier, Jesse (lacrosse) noted how learning more about her peers during movie nights and discovering she had similar interests with several peers led to deeper trust and support with those peers during practices and games. Thus, further highlighting not only an example of micro-moments in an unstructured, organic context, but also how such micro-moments can positively impact peers in structured and intentional contexts such as a sport.

Lastly, the current case study discovered micro-moments of women NCAA student-athlete development at the DIII level. DIII is inherently aimed towards the most balanced emphasis of all NCAA divisions between academics and athletics. As such,

the context we studied may lend itself to more opportunities for micro-moments around a sport rather than through the sport, such as a DI team would, given the greater emphasis on winning, more travel, and depending on the sport; pressure to be successful from a revenue generation viewpoint compared to the DIII teams studied here.

Practical Implications

From a practical perspective, leaders (such as the coaches in our current study) should encourage empowerment, model leadership, and allow for peer-to-peer interactions to facilitate leader development. Leaders of student-athletes (i.e., coaches) can accomplish this by empowering individuals to lead groups such as instituting their own version of a leadership council or creating groups to handle team-specific tasks such as organizing activities during road trips or give alternating groups of players a chance to design and run their own practice. Individuals will gain leadership experience while a leader can evaluate an individual's leader development progress. Additionally, coaches can create spaces to facilitate peer-to-peer leadership interactions by rotating members of groups during practice or in less formal spaces such as non-sport-related gatherings like movie nights. Leaders can be present during such interactions to ensure each follower has an opportunity to interact, however, some gatherings without a leader are recommended to allow followers to speak freely among their peers. Through empowering individuals and allowing for peer-to-peer leadership, coaches need to ensure that they are modeling leadership behaviors to their student-athletes. One way for a coach to ensure this is to solicit feedback from their student-athletes or an objective source (such as a higher up leader) regarding the leadership style the leader is exhibiting. A final general implication for those in athletic departments is to engage in similar practices of micro-moments to allow for and encourage follower leader development off the field. For example, developing an assistant athletic director or other follower in the department can prepare them for a greater role or enhance their leader capabilities in their current role. When an opening for a promotion comes to be, the athletic department will be potentially better prepared to fill that role internally with a capable replacement; thus saving on costs, keeping their own best talent in-house, and setting an example of how follower leader development through micro-moments can aid all levels of athletics, from administration to coaches to student-athletes.

For those in the NCAA DIII level of athletics, further practical implications are recommended. First, given the nature of DIII to emphasize a balance between athletics and academics; coaches, sport administrators, student-athletes, and teachers can all recognize the unique opportunities for micro-moments that can exist on the playing field and in the classroom. Recognizing how micro-moments can be instituted in various contexts can help to further enhance their positive impact on the leader development of the student-athletes. This is especially true since DIII does not have the same travel requirements as the DI level or emphasis on preparing student-athletes for potentially turning professional. The smaller nature of DIII campuses can allow for greater communication and synergy between coaches, sport administrators,

and teachers to help reinforce micro-moments for student-athletes in each context. Next, the DIII level also separates itself from DI and DII by having more women athletic directors than the other levels. This can also help enhance the modeling leadership aspect of micro-moments by providing a likelier chance that women student-athletes can see a woman in a sport leadership position at their own institution and further broaden the context through which micro-moments can be reinforced and open potential mentorship opportunities that are not as easily found at other NCAA levels. Lastly, other DIII institutions and teams can look to integrate similar leadership councils as the teams in our study have, or otherwise more easily create leadership opportunities for a higher percentage of their student-athletes compared to DI, where a greater emphasis on winning is typically placed along with greater travel requirements, which detract from a student-athlete's time to potentially gain leadership experience elsewhere.

Theoretical Implications

From a theoretical perspective, the current findings advance leader development research in sport (Welty Peachey et al., 2015) through focusing on intercollegiate female student-athlete leader development through micro-moments. Our findings revealed that a continued emphasis on follower-centric research perspectives in sport (Ferkins et al., 2018) is needed to make important and distinct contributions to the leader development research in sport. The current study also illustrated how despite making valuable contributions, current leadership theories in sport (Ferkins et al., 2018) have not adequately addressed the leader development gap or adequately focused on student-athletes as developing leaders. Particularly, focusing on this stage of development allowed us to explore student-athletes discovering their authentic selves, developing autonomy, and increasing their decision-making authority. Additionally, much of the leadership research has been focused on large interventions (Avolio & Vogelgesang-Lester, 2011), and thus, the current study makes an important theoretical contribution by showing that micro-moments are also critical to the understanding of how leaders develop. These micro-moments of leader development help explain part of the black box of the leadership process (Yammarino, 2013) that has not yet been thoroughly examined. Additionally, through continuation of this work and other follower-centric research in sport, we can potentially turn back the page from trying to solve leadership issues at the leadership level to solving issues at the follower or pre-formal leadership level by ensuring followers develop into better leaders to begin with (Damon et al., 2022). As we further our understanding of the leader development process through micro-moments, we can then emphasize followers as the next generation of leaders and strive to develop them as better, more ethical, and more conscientious leaders. We provide further guidance on future questions to address in the future research section below.

Limitations and Future Research

We would be remiss not to mention limitations to the current study. First, the current study used a case study approach by interviewing and observing participants

about their leader development journey. Such an approach possesses the limitation of relying on the participants' views and recollections of their own leadership abilities, a romanticizing of leadership biased by the participants' views of themselves (Bligh et al., 2011; Meindl et al., 1985). We triangulated our data to mitigate this risk as much as possible. To further address this limitation, future research should examine micro-moments of leader development longitudinally, as well as through a grounded theory approach to incorporate many views on a leader's development. A beneficial question to be answered through such an approach includes, do these student-athletes individuals move into leadership roles after transitioning out of their intercollegiate playing time (Smith & Hardin, 2020)?

A second limitation was the current study only examined intercollegiate student-athlete leader development in two women's NCAA teams. However, as we conducted a case study approach, we do not intend that our findings be used to generalize all other sport contexts or even different NCAA divisions and teams. Future research should aim to examine leader development in men's NCAA teams who have been coached by men and women to potentially gain insights into whether men and women student-athletes develop differently or through different micro-moments. Further, to expand beyond on-the-field sport teams into other campus contexts. For example, examining micro-moments in leader development across other contexts that student-athletes are involved in would further expand our understanding of how micro-moments outside of sport can potentially carry an effect over into one's sport participation and leader development through sport. Future research should also examine how various micro-moments may be emphasized or how different micro-moments may exist across different NCAA Division levels. For instance, a sport organization with a highly competitive culture (Division I) may not emphasize peer-to-peer leadership micro-moments as much as at the Division III level. In addition, it could be helpful to examine if sport teams (meaning the coaching staff) at an institution or athletic departments (i.e., athletic department personnel) themselves that strategically focus on leader development experience more effective leader development in their student-athletes than those that do not. Determining if there is a sort of trickle-down effect of leader development through different or similar on-field and off-field micro-moments would further enhance our understanding of any contextual differences or similarities of micro-moments impacting sport leader development. Lastly for a limitation, we acknowledge the sample is comprised of certain demographics (i.e., mostly college aged, White, female student-athletes). Future research would do well to examine how people of different races, gender, and age differ in their leader development and in the micro-moments and interactions that are part of this process.

Conclusion

The current study addresses a research gap of leader development through micro-moments, an area lacking in leadership related research within sport (Damon et al., 2022; Ferkins et al., 2018) and specifically pertaining to student-athletes.

Current findings advance the social construction of leadership and leader development among student-athletes through a focus on the micro-moments or day-to-day instances that affect leader development, as opposed to the broader interventions of previous research (Beghetto, 2015). More work is required within the student-athlete leader development area and an explicit theoretical conceptualization via grounded theory would bolster future research in this area. We encourage scholars to take part in developing this promising research stream .

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Examining Classroom Learning Behaviors and Academic and Athletic Motivation in Collegiate Athletes

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College student-athletes balance the demands of both sport and school in the context of higher education; high levels of motivation are necessary for success in both spaces. Studies have evaluated learning styles and academic motivational outcomes in college student athletes but there is a need to explore how motivation impacts both academic and athletic success. The present study examined the relationship academic, student athletic, and career athletic motivation had with learning styles and major (STEM vs. non-STEM) using Self-Determination Theory as the theoretical lens. College Division I, II, III, and Club college athletes took the Grasha-Reichmann Student Learning Style Scale and Student Athletes Motivation toward Sports and Academics Questionnaire. Learning styles were grouped into intrinsic (independent, participant, and collaborative) and extrinsic (dependent, avoidant, and competitive) styles. There were positive relationships between intrinsic learning style and both student athletic ($r(147) = .19$, $p = .02$) and academic ($r(147) = .30$, $p < .001$) motivation. Extrinsic learning style was positively correlated with career athletic ($r(147) = .27$, $p = .001$) and student athletic ($r(147) = .16$, $p < .05$) motivation but negatively corelated with academic motivation ($r(147) = -.17$, $p = .03$). Athletes in STEM majors ($M = 3.88$, $SD = 0.36$) had significantly higher academic motivation than non-STEM majors ($M = 3.66$, $SD = 0.40$), $t(182) = 3.85$, $p < .001$. Athletes in non-STEM majors ($M = 4.00$, $SD = 0.88$) had significantly higher career athletic motivation than STEM majors ($M = 3.56$, $SD = 0.91$), $t(182) = -3.29$, $p = .001$. Findings suggest being more independent, participant, and collaborative in class is related to motivation both in school and in student athletic endeavors. Athletes pursuing a STEM major may show higher academic motivation than athletes pursuing non-STEM majors. Encouraging student-athlete learning autonomy via education/intervention could improve intrinsic motivation in sport and classes, though further exploration of these factors is necessary to fully understand their relationship in college student-athletes.

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When it comes to motivation, self-determination theory (SDT) consists of three basic psychological needs: autonomy (the ability to self-govern), competence, (feeling capable of doing a task) and relatedness (feeling supported by or connected to others; Ryan & Deci, 2020). Deci & Ryan (1985) also describe SDT as being comprised of two categories of motivation: intrinsic motivation (the inherent enjoyment of a task) and extrinsic motivation (performing a task that leads to a separable outcome). While there are various subcategories of intrinsic and extrinsic motivation, as they exist on a continuum (Ryan & Deci, 2000), the consensus is fostering intrinsic motivation is most important for human development (Ryan & Deci, 2020). In the present study, SDT is used as the guiding framework for understanding classroom learning behaviors and motivational outcomes across contexts. Specifically, this study examines learning approaches in academic and athletic domains in college student-athletes.

Literature Review

Motivation in Academia

Some argue the primary focus of education should be on developing intrinsic motivation in individuals (Niemiec & Ryan, 2009). Motivation to perform well is often associated with the term "achievement motivation"; however, Anderman (2020) notes the translation from research on achievement motivation to educational policy change needs to be more deliberate. Though many educators will support the argument that intrinsic motivation is important for student learning, the implementation of tools and strategies that facilitate more effective learning is an area that needs to be more explicitly addressed. Researchers have examined constructs like grit (i.e., perseverance of effort and consistency of interest) and intrinsic versus extrinsic motivation in long-term, challenging tasks (Karlen et al., 2019). Results indicated significance of student intrinsic motivation with regards to academic achievement and that educators can play an important role if the student needs external support. Tempelaar et al. (2015) explored the impact effort beliefs have on achievement goals and academic motivations. The study of first-year business and economics students in the Netherlands found effort belief constructs are powerful mediators when it comes to intrinsic and extrinsic motivation in academic achievement settings. Calderon et al. (2020) explored the relationship between intrinsic motivation and academic achievement in pre-service physical education teachers. They found a positive correlation between "active" factors such as perceived competence and interest/enjoyment of the subject material and academic motivation, while there was a negative correlation between "non-active" factors such as pressure/tension and academic achievement. This connection to competence, a key psychological factor that aligns with SDT, supports the notion that intrinsic learning strategies are beneficial for academic achievement. These studies demonstrate that multiple factors can contribute to motivation in academia; the connection to athletics and learning is a potential avenue to continue this exploration.

Motivation and Athletics

Just as with academics, motivation is a key component to creating success in athletic environments. Duda's (2004) efficacy of goal setting study explored the motivational implications of setting process, performance, and outcome goals, concluding that task-involving goal setting is the category that results in highest motivational gain. Adapted sports athletes were found to have higher life satisfaction if their psychological needs from SDT were met, indicating that there are positive outcomes associated with intrinsic motivation in multiple sport populations (Domingues et al., 2022). These studies examined various tools for and predictors of higher athletic motivation; however, there is evidence that context-specific learning is required to have the desired effect on intrinsic motivation (Wang et al., 2018). Therefore, research could benefit from understanding learning approaches and the way that learning principles are connected to motivational outcomes in both academics and athletics.

Learning Styles

Understanding academic learning is often connected to individuals possessing a learning style; however, heavy reliance on learning styles has been criticized. A content analysis on 20 introduction to education and educational psychology textbooks found that most introduction to education textbooks took a positive approach to learning styles, while most educational psychology textbooks took a neutral or negative stance (Wininger et al., 2019). Additionally, about half of the textbooks defined learning style as a students' favored approach to learning, while the other half defined it as a student's modality preferences (Wininger et al., 2019). The definition of learning style used in this study follows the "favored approach to learning" (Wininger et al., 2019, p. 234) interpretation of the term; this definition shifts focus from learning style being innate to being teachable, learnable behaviors.

There is a preconceived notion that identifying with a "dominant" learning style and matching teaching methods to that style is an effective approach for learning intervention, when in fact, there is little empirical support for this claim (Newton & Miah, 2017). Explicit categorization fails to account for multiple, intersecting, underlying mechanisms of learning that could influence motivational outcomes. For the sake of the present study, it is important to view learning as a continuum where individuals can lean on multiple approaches to achieve success. The Grasha-Riechmann Student Learning Style Scale (GRSLSS) aligns with this multifaceted approach; the six learning style subscales can have varying strengths, and individuals can be strong or weak in multiple areas simultaneously. The GRSLSS styles are independent (e.g., having confidence in one's own learning abilities), avoidant (e.g., lacking enthusiasm about class), collaborative (e.g., sharing ideas and talents with others), dependent (e.g., relying on authority for learning direction), competitive (e.g., wanting to outperform others in the class), and participant (e.g., taking initiative and actively engaging with material). The definitions of these learning styles align well with the intrinsic and extrinsic motives characteristic of SDT. Ryan and Deci (2000) specify that in education, classroom conditions should allow students to feel connected (relatedness), effective (competent), and agentic (autonomous) in learning skills to

strengthen intrinsic motivation. The independent, collaborative, and participant style items indicate confidence in abilities and social interactions, which are common characteristics associated with intrinsic motivation. The dependent, competitive, and avoidant style items show an unwillingness to engage in classroom practices without a separable outcome to influence the individual, aligning more with the definition of extrinsic motivation.

Application of the GRSLSS learning style scale has yielded useful results in academic contexts. Asci et al. (2016) found the avoidant learning style was associated with lack of note-taking skills in pharmacology students, and the collaborative learning style was most common in these higher-education learners. Employing team-based learning strategies influenced kinesiology students' styles after four semesters of class, resulting in decreased avoidant and dependent and increased participant learning style alignments (Meeuwsen et al., 2005). Both studies illustrate that learning style, defined as the approach one takes to learning skills/material, is not a fixed characteristic in individuals and are associated with teachable, skill-related behaviors. Moving forward, research can apply this learning style model to the intersection of academic and athletic contexts and provide additional insights on college student-athlete learning behaviors.

Student-Athlete Learning and Motivation

Student-athletes are a unique population that experience the intersection of learning, academic motivation, and athletic motivation directly. Duda and Nicholls (1992) were some of the first researchers to examine achievement motivation dimensions in both schoolwork and sport. Their study showed that task-orientation was the main predictor of satisfaction in schoolwork. Curry et al. (1997) examined hope as a motivational factor in collegiate athletes and nonathletes from the same university, finding that athletes had higher levels of hope than nonathletes. This shows that motivational factors may differ between athlete and nonathlete populations, demonstrating a need to study academic motivation specifically in student-athletes to better understand factors that influence their willingness to succeed in the classroom. Lucas and Lovaglia (2008) evaluated student-athletes' expectations for success in athletics compared to academics, and overall, the athletes were less motivated to perform academically compared to the nonathlete control group. Addressing these deficits in academic motivation in college athletes can benefit the overall development of student-athletes. When Gaston-Gayles (2004) developed the Student Athlete's Motivation Toward Sports and Academics Questionnaire (SAMSAQ) as a means of measuring academic motivation, student athletic motivation, and career athletic motivation, there was a shift to examining motivation in multiple areas simultaneously. This prompted more researchers to study student-athlete motivation with both academic and athletic motivation in mind. Using the SAMSAQ, Tudor & Ridpath (2018) examined perceived motivational climate and motivation, discovering a task-involved climate in sports predicted both high sport motivation and high academic motivation. Continued application of the SAMSAQ with different constructs can contribute further to research on relationships connected to college student-athlete motivation.

Student-Athlete Majors

Early studies on student-athlete majors examined degree aspirations and degree attainment in collegiate football, men's basketball, and other intercollegiate players (Briggs, 1996). Though it is interesting in this Briggs (1996) paper that football and basketball athletes had lower degree aspirations than their athlete counterparts, the degree that these athletes were pursuing was not specified. Studies that examine specific majors of college student-athletes may be more useful in understanding major trends. More recent literature surrounding college student-athlete majors focuses on academic clustering (i.e., situations where members of the same team pursue the same major; Fountain & Finley, 2011). In Fountain and Finley's (2011) longitudinal study, there was evidence of many DI football players, and mostly minority players, migrating to a specific set of academic majors as they progressed through college. This may be because of interference between athletic and academic demands such that the athlete is not capable of pursuing a degree with strict academic requirements or time-intensive coursework, but more evidence is needed to fully support this claim. Foster & Huml's (2017) study offers a potential explanation for choosing a major unrelated to career goals; their study found college student-athletes who factored athletic responsibilities into their major choice also had stronger levels of athletic identity. This places a higher responsibility on athletic counselors to inform athletes of other opportunities beyond sport to ensure that career path is also considered when choosing a major. Evidence from existing literature supports the notion that academic/student affairs professionals can influence student-athletes' major selection process (Navarro 2015). A closer examination of student-athlete major groupings could provide interesting insights, informing academic professionals about which athletes could use more guidance in choosing their major. Comparing the type of major (i.e., STEM vs. non-STEM) is a novel avenue that could provide new insights to differences in academic motivation among student-athlete groups.

Purpose

College student-athletes must balance the demands of high-level sport with the rigorous demands of higher education. Though the research on academic motivation, athletic motivation, and learning styles is abundant separately, little research has been dedicated to their intersection as it relates to the life of college athletes. Student-athletes perform in an environment where these three principles overlap, justifying a need to examine this population. Literature suggests teaching format and learner preferences should match (Awla, 2014), but more can be done to understand what behavioral adjustments learners should make to facilitate more effective classroom learning. Similar principles can be found in athletic settings. When studying leadership styles and classroom climate on learning motivation for a basketball class, Jiang and Jia (2017) found leadership styles such as individualized leadership, charismatic leadership, and intellectual stimulation had a positive effect on intrinsic motivation for student learning. Again, adjustments can be made to facilitate intrinsic motivation and learning, but the nuances of how to accomplish this need further study. There are few studies addressing the intersection of a student-athlete's major

with their motivation, but a deeper understanding of major choice could provide insight on groups of student-athletes that could benefit from additional supports. The present study aims to address these gaps.

The purpose of this study was to examine relationships between the learning style behaviors of college athletes and their levels of motivation in their sport and the classroom. The term "learning style" is operationally defined as "favored approaches to learning" (Wininger et al., 2019, p. 234) as aligned with the GRSLSS subscales and thus reflects the classroom learning behaviors of the college student-athletes being studied. Researchers explored the following question: Is there a relationship between learning style and academic, student-athletic, and career athletic motivation?

It was hypothesized that athletes with strong independent, collaborative, and participant learning style scores have a positive correlation to academic, student athletic and career athletic motivation, namely because of the alignment of these learning style behaviors with the intrinsic motivation component of SDT (Hypothesis 1). Conversely, it was anticipated the athletes with strong dependent, avoidant, and competitive learning style scores have a negative correlation to academic, student athletic, and career athletic motivation due to these styles' alignments with the extrinsic motivation component of SDT (Hypothesis 2). With regards to student-athlete majors, it was hypothesized that athletes pursuing a STEM major (e.g., those pursuing a BS) demonstrate higher academic motivation than athletes who are in non-STEM majors (e.g., those pursuing a BA; Hypothesis 3).

Methods

Participants

Using a G-power analysis for a correlation and a medium effect size of .30 at a probability of $p < .05$, the goal was to obtain responses from 130 athletes across a variety of sports and institutions. A total of $N = 257$ individuals started the survey. After removing the cases that did not consent to participate or were not eligible (i.e., those under 18), there were a total of $N = 234$ participants with some valid data. The age range of the participants was between 18-31 years old ($M = 19.88$, $SD = 1.91$). The gender distribution was 55% women, 43% men, and 2% identifying as non-binary/third gender. Over half of the participants identified as Caucasian (56%), with five other races represented. Twenty-nine percent of the participants identified as Hispanic/Latinx. A majority (77.4%) of the participants attended the same southwestern Division I academic institution, with 10 other institutions also being represented within the sample. The most common academic classification among participants was freshman at 37%. Baseball players had the largest representation by sport at 25%, followed by water polo at 14% and volleyball (indoor and/or beach) at 10%. There were 16 other sports represented. Most of the participants (61.5%) competed at the Division I level, though Division II, III and club athletes were also represented. Self-reported GPA ranged from 1.20-4.40 with an average GPA of 3.43. A comprehensive breakdown of the demographics can be found in Table 1.

Table 1
Demographic Information

	n	%
Age		
18	68	29.1
19	46	19.7
20	26	11.1
21	41	17.5
22	25	10.7
23	7	3.0
24	5	2.1
26	1	.4
27	1	.4
31	1	.4
Gender		
Men	101	43.2
Women	129	55.1
Non-binary / Third Gender	4	1.7
Race		
Black or African American	8	3.4
Caucasian	132	56.4
Asian	20	8.5
Native Hawaiian or Pacific Islander	2	.9
Other	26	11.1
Prefer not to state	12	5.1
Multiple Selected	30	12.8
Ethnicity		
Hispanic/Latinx	68	29.1
Not Hispanic/Latinx	146	62.4
Prefer not to state	9	3.8
Year in School		
Freshman	87	37.2
Sophomore	26	11.1
Junior	43	18.4
Senior	37	15.8
5th Year Senior	12	5.1
6th Year Senior	1	.4
Graduate Student	13	5.6

Sport		
Baseball	59	25.2
Soccer	20	8.5
Volleyball (Indoor, Beach)	24	10.3
Rugby	14	6.0
Track and Field/XC	13	5.6
Water Polo	34	14.5
Basketball	5	2.1
Archery	16	6.8
Multiple Sports	4	1.7
Swimming	4	1.7
Softball	8	3.4
Football	1	.4
Karate	1	.4
Golf	2	.9
Tennis	2	.9
Bowling	1	.4
Gymnastics	1	.4
Equestrian	2	.9
Fencing	1	.4
Ice Hockey	1	.4
Lacrosse	1	.4
Sport Level		
Division I	144	61.5
Division II	23	9.8
Division III	2	.9
Club	47	20.1

Measures

Motivation

The SAMSAQ was used to assess both academic and athletic motivation in the student-athletes. The questionnaire consists of three subscales: academic motivation (16 items), student athletic motivation (8 items), and career athletic motivation (5 items). Each of the items contains a statement the athlete rates on a 6-point Likert scale. The scale ranges from very strongly disagree (1) to very strongly agree (6). One of the items in the academic motivation subscale is "I am willing to put in the time to earn excellent grades in my courses." An example of a student athletic motivation item is "It is important for me to do better than other athletes in my sport." For the career athletic motivation subscale, one of the items is "My goal is to make it to the professional level or the Olympics in my sport." The mean subscale scores were calculated to evaluate the athlete's academic, student athletic, and career athletic motivation. Previous studies have determined the scale has internal consistency (Gaston-Gayles, 2005). In the current study, Cronbach's alpha for the academic motivation subscale was .50, for student athletic motivation was .64, and for career athletic motivation was .59.

Learning Styles

The GRSLSS was used to assess attitudes and feelings towards the courses that each athlete is taking at their institution. The scale consists of 60 statements that participants rate on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Each item in the scale corresponds to one of the following learning style dimensions: independent (i.e., "I am confident in my ability to learn important course material"), avoidant (i.e., "I often daydream during class"), collaborative (i.e., "The ideas of other students help me to understand course material"), dependent ("Teachers should tell students exactly what material is going to be covered on a test"), competitive (i.e., "Students have to become aggressive to do well in school"), and participant (i.e., "Classroom activities generally are interesting"). There are 10 items in each subscale. Mean subscale scores were calculated to assess the strength with which the individual's classroom behavior aligns with each of the six learning styles. Baykul et al. (2010) have previously studied the internal consistency for the scale with respect to applications in both English and Mathematics. For the current study, Cronbach's alpha was independent = .59, avoidant = .72, collaborative = .78, dependent = .61, competitive = .77, and participant = .73. In addition, Cronbach's alpha for the intrinsic subscale was .80 and for the extrinsic subscale was .70.

Demographic Information

Demographic information was collected from each athlete at the beginning of the survey. This included age, gender, race, ethnicity, institution, year in school, GPA, major, sport, and college division.

Procedures

The athletes were recruited via flyers with a QR code that linked directly to the survey. The flyer was presented to them in-person, projected onto a screen in a classroom, or emailed to them from coaches, case managers, or other team support staff. A total of three coaches, one case manager, and 16 support staff were involved in the dissemination of the survey. Snowball sampling was utilized by asking the study participants to share the survey with their current and former teammates who also met inclusion criteria. The first author also used personal networks, asking classmates to assist with the outreach and distribution of the survey. Emails were sent to 21 peers to be passed along this way.

The first page of the survey had the informed consent document; a digital signature was required prior to beginning the survey. Once signed, the survey progressed from demographic information, to the SAMSAQ, to open-ended questions, and then to the GRSLSS. The survey took approximately 15 minutes to complete.

Data Analysis

Normality checks were conducted prior to running the analyses. First, frequency data was generated to ensure all values reported fell within the expected values for each variable. Then, histograms and boxplots were created for all eleven subscales. This included the career athletic, student athletic, and academic motivations subscales of the SAMSAQ and the independent, participant, collaborative, competitive, dependent, and avoidant subscales of the GRSLSS. Normality checks were also conducted on the calculated intrinsic and extrinsic learning style variables. All the histograms appeared normally distributed, but there were some outliers in the data according to the boxplots. The seven outliers were adjusted to the value of the subscale's mean score based on guidance from Aguinis et al. (2013).

Due to the length of the survey (i.e., over 100 questions), there was a significant drop-off in the number of participants that completed the entire survey. As stated above, the survey was presented in the following order: demographics, SAMSAQ, open-ended questions, and then the GRSLSS. To run the data for hypotheses 1 and 2, participants were required to complete the entire survey, since the GRSLSS was the last component and needed to be complete for the correlations to run. Many participants elected not to complete the open-ended questions and therefore did not begin any part of the GRSLSS that followed. Hypothesis 3 could be analyzed so long as participants completed the SAMSAQ, which was situated before the open-ended questions, resulting in less drop-off. Different subgroups of the data were used to address each hypothesis to include as much valid data as possible for each research question.

The data was analyzed using SPSS. After removing cases that did not complete 96% or more of the scale (i.e., only 1-2 data points missing maximum), the total participants for hypotheses 1 and 2 was $n = 149$, in which sufficient power was still maintained. Then, a Pearson's r correlation was run to assess the relationships between eight learning style scores and the three SAMSAQ subscales. The first six learning styles are the individual styles in the GRSLSS: participant, avoidant, inde-

pendent, dependent, collaborative, and competitive. The other two subscales are the calculated intrinsic and extrinsic groupings. Participant, collaborative, and participant learning styles were grouped into an "intrinsic" score, and dependent, competitive, and avoidant learning styles were grouped into an "extrinsic" score. The three SAMSAQ subscales are career athletic motivation, student athletic motivation, and academic motivation. To test the third hypothesis, independent *t*-tests compared the three types of motivation (career athletic, student athletic, and academic) in students with STEM majors to students in non-STEM majors. STEM majors were defined as Bachelor of Science degrees and non-STEM majors were defined as Bachelor of Arts degrees. After removing cases that did not complete 96% or more of the scale (i.e., only 1-2 data points missing maximum), the total participants for hypotheses 3 was $n = 196$.

Results

Correlations Between Learning Styles and Motivation

Career Athletic Motivation

Out of all six individual learning styles, the only significant correlation was a positive relationship between competitive learning style scores and career athletic motivation, $r(147) = .32$, $p < .001$. There were no significant results indicating that any of the intrinsic leaning styles were positively correlated with career athletic motivation as predicted. Additionally, there was no evidence that any of the individual extrinsic learning style scores were negatively correlated with career athletic motivation.

Student-athletic Motivation

There was a significant, weak, positive correlation between independent learning style scores and student athletic motivation scores, $r(147) = .17$, $p = .04$, as well as participant learning style scores, $r(147) = .19$, $p = .02$. There was no evidence that individual extrinsic learning styles were negatively correlated with student athletic motivation. Overall, there was a positive relationship between the intrinsic learning style score and student athletic motivation ($r(147) = .19$, $p = .02$).

Academic Motivation

There was a significant, moderate, positive relationship between participant learning style scores and academic motivation scores, $r(147) = .39$, $p < .001$. There was a significant, moderate, negative correlation between avoidant learning style scores and academic motivation, $r(147) = -.32$, $p < .001$. This aligns with hypothesis 2: that extrinsic learning styles are negatively corelated with motivation levels. There was a positive relationship between intrinsic learning style scores and academic ($r(147) = .30$, $p < .001$) motivation. Additionally, the extrinsic learning style scores were negatively correlated with academic motivation ($r(147) = -.17$, $p = .03$).

Additional Correlations

In sum, hypotheses 1 and 2 were partially supported through the significant results identified above. There were additional significant correlations found that did not align with hypotheses. This included positive correlations between extrinsic style scores and student athletic motivation (r (147) = .16, $p < .05$) and career athletic motivation (r(147) = .27, p = .001). There was also a positive correlation between dependent learning style scores and student athletic motivation (r(147) = .22, p = .006). Table 2 includes a summary of correlations between all subscales in the study.

Differences Between Academic Majors and Motivation

Hypothesis 3 (n = 196) predicted athletes pursuing a STEM major (BS) would demonstrate higher academic motivation than athletes in non-STEM majors (BA).

Majors were placed in the non-STEM category if the major is a Bachelor of Arts (B.A.) at the institution the athlete is studying at, while majors in the STEM category were the Bachelor of Science (B.S.) degrees. There were 107 participants placed in the STEM category and 77 participants placed in the non-STEM category. Eleven participants were undeclared, and one participant listed "Bachelor's degree" without specifying a major. These 12 cases were omitted from the analysis because their majors could not be categorized. It is important to note that some majors overlap in this breakdown; this is because some majors (e.g., Business, Marketing) are a B.S. at some institutions and a B.A. at others. The categorization of majors from each participant response was checked via institutional course catalogs available online. 5.6% of the responses were split using this procedure.

Based on the results of the independent samples t-test, with equal variances assumed, college student-athletes in STEM majors (M = 3.88, SD= 0.36) had higher academic motivation than those in non-STEM majors (M = 3.66, SD = 0.40), t(182) = 3.85, $p < .001$. The athletes in non-STEM majors (m = 4.00, sd = 0.88) had higher career athletic motivation than STEM majors (M = 3.56, SD = 0.91), t(182) = -3.29, p = .001. There was no significant difference in student athletic motivation between athletes with non-STEM majors (M = 4.79, SD= 0.59) and those with STEM majors (M = 4.63, SD= 0.56), t(182) = -1.95, p = .05. The data supports hypothesis 3, that athletes within STEM majors exhibit higher levels of academic motivation than those in non-STEM majors. These results suggest athletes who are pursuing a B.S. appear more motivated to do well in school than those pursuing a B.A., who may have higher motivation to pursue their athletic career.

Discussion

The purpose of this study was to evaluate the learning styles of college athletes and compare these learning approaches to career athletic, student athletic and academic motivation. Hypothesis 1 proposed the athletes with strong independent, collaborative, and participant (i.e., intrinsic) learning styles have a positive correlation to academic and athletic motivation. This was partially supported through positive correlations between independent, participant, and intrinsic learning styles with stu-

Table 2

Learning Style and Motivation Correlations

Subscale	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. Independent	3.49	.47	–										
2. Avoidant	3.20	.60	-.02	–									
3. Collaborative	3.65	.63	.12	-.17*	–								
4. Dependent	3.69	.45	.07	-.19*	.42**	–							
5. Competitive	2.65	.66	.28**	.12	.17*	.16*	–						
6. Participant	3.49	.60	.19*	-.54**	.52**	.36**	.29**	–					
7. Intrinsic	3.54	.41	.53**	-.35**	.80**	.41**	.34**	.81**	–				
8. Extrinsic	3.18	.35	.19*	.57**	.19*	.42**	.77**	.03	.18*	–			
9. CAM	3.77	.92	.07	.14	-.01	-.04	.32**	-.01	.02	.27**	–		
10. SAM	4.73	.56	.17*	.004	.08	.22**	.10	.19*	.19*	.16*	.51*	–	
11. AM	3.78	.40	.09	-.32**	.15	.09	-.04	.39**	.30**	-.17*	-.38**	-.14	–

Note. *$p<.05$. **$p<.01$. Intrinsic styles: independent, collaborative, participant. Extrinsic styles: dependent, competitive, avoidant. CAM: Career athletic motivation. SAM: Student athletic motivation. AM: Academic motivation.

dent athletic motivation, and participant and intrinsic learning styles were positively correlated with academic motivation. Additionally, it was anticipated that athletes with strong dependent, avoidant, and competitive (i.e., extrinsic) learning styles will have a negative correlation to academic and athletic motivation (Hypothesis 2). Partial support was established though avoidant learning styles and extrinsic learning styles being negatively correlated with academic motivation.

A second aim was to compare levels of motivation in STEM vs. non-STEM majors. It was hypothesized that athletes who are pursuing a STEM major (BS) demonstrate higher academic motivation than athletes who are pursuing a non-STEM major (BA) due to the more demanding requirements of STEM majors and the difficulty that comes with also training (Hypothesis 3). The results of this study supported this hypothesis; it was found that college student-athletes in STEM majors had significantly higher academic motivation than those in non-STEM majors.

Learning Styles and Motivation

The participant learning style was positively related to student athletic and academic motivation. This implies that active involvement in classroom learning and activities is related to the motivation to do well in both the classroom and in sport. Similarly, intrinsic learning style was positively correlated with student athletic and academic motivation. Findings from similar studies indicate team cohesion and working towards a common goal is correlated with peer-initiated motivational climate in sports (McLaren et al., 2017). In other words, participating more on the field is related to higher athletic motivation. The results of this study suggest athletes can carry this value of cohesiveness/participation into classroom settings as well. This has implications for future studies, as targeting such buy-in through increased participation may enhance motivational outcomes in both settings.

The independent learning style was positively correlated with student athletic motivation, suggesting there is a relationship between classroom self-learning habits and motivation to do well in sports during college. According to SDT, autonomy is an important psychological need to foster intrinsic motivation in an individual (Ryan & Deci, 2020). Knowing how to engage in self-regulated learning is a way to improve autonomy in the classroom, and if this relationship between classroom independence and sport motivation exists, encouraging intrinsic learning strategies may benefit motivational outcomes in sport as well. The independent learning style subscale included items related to knowing what content is important, knowing how to study, and seeking to solve problems on one's own. According to Bartulovic et al. (2017), self-regulated learning behaviors can be effective in the development of athletes when used in sport settings. For example, the study found the use of self-monitoring was the most important process predicting membership as an elite athlete. Additionally, constituent processes like amount of effort and self-efficacy were also listed as important characteristics of elite athletes. These behaviors in sport can enhance athlete development, as athletes learn to be more aware of their actions in practice, track their implementation of skills in training, invest in their own improvement, and believe they have control over their sport outcomes. Further exploration

is needed to better understand the transferability of these overlapping behaviors (i.e., self-regulated learning, self-monitoring, self-efficacy) from classroom to sport and sport to classroom.

The avoidant learning style was negatively correlated with academic motivation. When athletes reported daydreaming in class, procrastinating, etc., they also reported less motivation to perform well academically. According to Lucas and Lovaglia (2008), athletes can be less motivated to perform well in school than nonathlete counterparts. The researchers speculated this is due to expectations for professional sports careers; however, data from the present study did not find a significant relationship between avoidant learning style and career athletic motivation. Other factors may influence such a relationship, warranting a further exploration of this concept. Lack of engagement in class has been linked to poor motivation in the past; a study by Skinner et al. (2009) evaluated behavioral and emotional disaffection in students and found scores in these domains were correlated with lack of academic effort, or amotivation. The results in this study suggest student-athletes may be subject to similar patterns of decreased motivation when they are passive or disengaged in class. To combat this, there exists the potential of providing more advising appointments, which Nelson (1982) found was related to higher GPA compared to athletes who did not engage in as many advising appointments. Other interventions still need to be explored to increase academic motivation in athletes with avoidant classroom behavior. It is important to note there was not a significant correlation between avoidant learning styles and student athletic or career athletic motivation in this study. In fact, though the correlations were not significant, the relationship between avoidant and both types of athletic motivation were positive. This result suggests the extrinsic approach student-athletes may have in the classroom is not necessarily related to their motivation on the field, both in the context of being a student-athlete and in terms of pursuing professional sport careers. Though results from this study imply independent and self-regulatory learning approaches could benefit both academic and athletic motivation, there was no evidence suggesting the inverse, having extrinsic learning styles in the classroom, is a detriment to motivation in sport.

The dependent learning style was positively correlated with student athletic motivation. The content of the dependent learning style items indicates a heavy dependence on the teacher's responsibility to teach students (e.g., "Teachers should state exactly what they expect from students"). This result suggests student-athletes may place academic responsibility on the instructor, despite feeling motivated to succeed in their sport. When it comes to external support for students, Karlen et al. (2019) found educators play an important role; however, feeling a lack of social support from a professor is an external factor that is not always in a student's control. Instead, programs could help learners develop independence through teaching mindset change and how to adopt an internal locus of control for classroom learning.

The competitive learning style was positively correlated with career athletic motivation, suggesting competing with classmates may be related to the desire to continue sport beyond college into professional competition. Carless & Douglas (2012) stated some elite athletes strive for success across contexts and in multiple forms; it

follows that student-athletes could take their competitive, elite approaches to sport and bring that into classroom settings. It may be beneficial to implement competition into coursework activities to engage athletes in a more meaningful way. Doing so could increase interest in classroom activities and potentially improve academic motivation.

The calculated intrinsic learning style was positively correlated with student athletic and academic motivation. Collectively, the stronger the independent, participant, and collaborative approaches athletes took to classes, the more motivated these student-athletes were both on the field and in the classroom. This suggests a relationship between the internal approaches to success in the classroom and their motivation for success in their sport while in college. These athletes may be employing similar strategies for learning and success in both domains; therefore, interventions teaching athletes to employ intrinsic learning styles could benefit a student-athlete's holistic motivation. More studies should be conducted to properly assess whether similar learning approaches can be used to increase intrinsic motivation in both contexts.

The extrinsic learning style was positively correlated with career athletic and student athletic motivation but negatively correlated with academic motivation. The stronger the athletes felt that external factors (i.e., the professor, other classmates) influenced their classroom behaviors, the more motivation they reported for their sport, and the less motivation they reported for academics. This finding suggests athletes may be carrying their "depend on your teammates" or "coach tells me what to do" behaviors into the classroom. This may show through relying on classmates for notes or expecting the instructor to teach them everything they need to know. Though this may satisfy the relatedness psychological need, it also illustrates a lack of autonomy with learning practices. Athletes who demonstrate these tendencies could benefit from resources that increase autonomous learning, such as teaching note taking strategies or learning how to seek information and answers independently.

Major and Motivation

Institutional norms can pressure athletes to perform well athletically at the expense of their academic success (Simons et al., 1999). For example, athletes spend anywhere from 20-30 hours per week in their sport, which can take time and energy away from the classroom. Simons et al. (1999) explained how motivation to succeed academically and obtain a degree is weakened by the opportunity to leave school early to play professionally. Results from Hypothesis 3 suggest athletes pursuing a B.S. may be looking at long-term outcomes for a career related to their major and not necessarily to continue their sport playing professionally after college. These results suggest athletes who choose STEM majors already have high levels of academic motivation and may not require the same intervention/support as other athletes. This is consistent with the notion that student-athletes are like non-student-athletes in that they choose majors that align with their interests (Pendergrass et al., 2003). Such interest in the material can increase feelings of competence, which according to SDT, may contribute to the higher motivation in STEM major athletes.

These results also suggest athletes pursuing a B.A. are the ones who may need extra tools, skills, or support to increase motivation in the classroom. The data show

athletes in non-STEM majors are more motivated to pursue their athletic careers, as indicated by the significantly higher career athletic motivation than STEM majors. This aligns with the notion that non-STEM majors are easier or provide more flexibility than STEM majors, which not only allows athletes to focus more on their sport, but also provides more options for class times during season when time commitments are restricting. The lower motivation may also result from lack of freedom to choose their major. Athlete clustering, defined as counselors placing large amounts of athletes on the same team in the same major/classes, is known to occur specifically in college football players (Fountain & Finley, 2009). Such lack of autonomy could be influencing the academic motivation of athletes whose major is decided for them. More investigation is required to understand the extent to which choice of major and motivation to succeed in the classroom are related in student-athlete populations.

Limitations

Though there were significant findings in the current study, there are some limitations to take into consideration. First, the population lacked diversity in a few ways. The athletes who took the survey were predominately white at 56.4% of the sample. This limits the generalizability of the results, as racial minorities may have different experiences than the experiences of the athletes in the present study. Similarly, most of the population was from the same southwestern school. A total of 77.4% of the sample attended this school, with 76.8% of those athletes competing at the Division I level, 18.2% competing for a club team, and 5.0% declining to report their sport level. Experiences of the athletes at this institution do not necessarily apply to other institutions across the country. Additionally, a larger portion of the data was collected from athletes who compete at the Division I level (61.5%), so this has limited applications to Division II and Division III institutions.

A methodological limitation of the present study is the SAMSAQ reliabilities were low compared to previous findings. Though Gaston-Gayles (2005) reported Cronbach's alpha values of .86 (academic motivation), .84 (student athletic motivation), and .79 (career athletic motivation, the present study had reliabilities of .50, .64, and .59 respectively. Researchers considered item deletion to improve reliability; however, most of the results were maintained with or without such deletion, so researchers opted to maintain the integrity of the original subscales. Results should be interpreted with caution given this low reliability. More iterations of this study with diverse athlete populations are required to further assess the patterns found in the current study's data.

Finally, the reliabilities of the GRSLSS subscales in the present study were moderate; however, they weren't entirely inconsistent with reliabilities in previous studies. Baykul et al. (2010) assessed reliabilities twice, and most of the reliability values here were similar. For example, the independent subscale had values essentially equal to that of the cited study. Though the present avoidant reliability was considerably lower at .72 instead of .82 (English) and .94 (Math), the remaining four subscales had reliabilities higher than reported in previous literature. Though consistent with previous work, it is still important to be cautious of conclusions drawn from a scale with lower reliability, particularly with the correlation between avoidant

learning style and academic motivation in this study. The lower avoidant subscale reliability should be taken into consideration when analyzing those correlations. It is important to reiterate that learning styles were evaluated to identify common patterns and trends, not to categorize individuals into a single, "dominant" learning style. Therefore, drawing conclusions from this study should not rely heavily on a single subscale.

Future Direction and Applications

College student-athletes are expected to learn and perform at high levels in both academic and athletic contexts. Therefore, it is reasonable to assume that approaches to learning in both domains are connected. Motivational outcomes are likely connected too. The findings in the present study are a start to understanding these interactions between academic and athletic learning behaviors. More information is needed to understand, develop, and teach effective learning approaches and skills to student-athletes. Future research on the intersection of athletic and academic motivation could focus on autonomy-supported learning strategies to figure out which learning approaches have better success outcomes for student-athletes. For example, interventions can be created to target self-efficacy as it relates to both athletics and academics. These would provide education on adaptive behaviors that apply to learning in both academics and athletics. Targeting the specific overlap of learning strategies (i.e., self-directed learning, seeking help outside of class/practice, developing a growth mindset) and demonstrating academic and athletic applications could help athletes understand the similarities for success between both contexts. This would increase learning competence and could help with the transfer of effective intrinsic motivation behaviors between the domains, enhancing the overall wellbeing of the athlete. Understanding how learning in sport is related to learning in the classroom is particularly important in college student-athletes who must manage the constant input of information from coaches, staff, professors, etc. daily. Understanding the processes behind learning at the college level can inform educators and coaches of more adaptive strategies for student-athlete motivational development.

Results from this study on differences between STEM and non-STEM majors could be used to inform academic stakeholders of the needs of college student-athletes. For example, advising centers could use this information to guide their targeted academic support and mentoring services. The major an athlete selects could be predictive of their professional goals, giving advisors some insight on the motivation of advisees who they may not have built rapport with yet. More studies could be created to better assess the predictive validity of athlete STEM vs. non-STEM major patterns and understand the directionality of this relationship. Understanding whether major choice predicts motivation levels or whether motivation levels influence major choice could help academic stakeholders identify potential motivational needs and areas for learning behavior development based on the major that athletes enroll in as freshmen.

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Coaching Transition and Nature of Change: An Examination of NCAA DI Team Sports

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NCAA Division I team sport head coaches typically end their coaching roles by taking a more prestigious and lucrative position, or by being fired. These differences in the nature of the leadership change suggest differences in programmatic conditions at the time of change. How a leader leaves the program undoubtedly reverberates through the program resulting in coaches, players, administrators, and fans with varying levels of satisfaction. While literature is replete with the impact of leadership changes, there is little evidence to distinguish among nature of change, and strong evidence that a negative head coaching change precedes athletic and academic decline. Thus, this study investigated 414 NCAA Division I team–sport head coaching changes using a variety of athletic and academic variables to determine what best predicts specific types of coaching changes. Results indicated athletic success has the strongest relationship and is most predictive, as expected, particularly in revenue sports. Other noteworthy findings, however, revealed female coaches have less negative coaching changes than males, and that hiring an alum or having a high Academic Progress Rate predicted a negative change. These findings reveal there are variables beyond winning that influence the nature of change and establish patterns that could assist administrators in times of transition.

Intercollegiate athletic head coaches, particularly at the most elite levels of competition, are routinely scrutinized for their team's performances. The most successful coaches often find themselves moving to larger and more lucrative positions, while less successful coaches are regularly fired. The nature of a coaching transition is indicative of the current health of the program, and ultimately how the program will perform for a new coach (Cunningham & Dixon, 2003; Johnson et al., 2012, 2013, 2015, 2017, 2018). If stakeholders knew what was most associated with the nature of change, beyond winning games, they could better plan for specific types of transitions that are likely to follow distinct types of changes.

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Defining the nature of change for intercollegiate head coach transitions has been implemented in several studies by Johnson et al. (2012, 2013, 2015, 2017, 2018). In those studies, the nature of change was used as one of many independent variables examined in relation to academic variables (2013), individual sports of football (2013, 2015) and basketball (2018), and winning (2012, 2015, 2017). These studies all defined a positive coaching change as"leaving for a more prominent coaching position after success, retired voluntarily with a history of success, or was promoted to athletic director because of accomplishments" (Johnson et al., 2018, p. 150). Negative change was defined as "fired, resigning after a lack of success, scandal, or other negative circumstances where resignation or termination occurred" (Johnson et al., 2018, p. 150). Despite some significant relationships found between nature of change and other variables, nature of change has never been the dependent variable under investigation. Considering there is evidence of its impact post-transition, it is prudent to determine whether this variable can aid stakeholders to improve the ramifications of coaching change.

Thus, the purpose of this study was to investigate the nature of head coaching changes and patterns of coaching transition by providing empirical data that may influence administrative decisions for the betterment of college athletes. Given the aforementioned literature, and acknowledging the complicated nature of college athletics, one overarching research question guided this study: What variables are most related to nature of head coaching change? The following hypotheses were created:

H_1: Winning will have the strongest relationship to nature of change.

H_2: Winning will be most predictive of nature of change.

H_3: APR scores and alumni status will have significant relationships to nature of change, but less significant than winning.

Review of Literature

Theoretical Underpinnings

Leadership literature has many findings about the causes of leadership changes and the contexts under which these changes occur. The earliest theoretical approaches surrounding leadership research were found in traditional business environments where CEOs were evaluated based on their effectiveness following a change (Lieberson & O'Connor, 1972). Unfortunately, studies of internal and external leadership choices had mixed findings leading to conclusions that had little practicality (Giambatista et al., 2005). Sport differs from business environments but is an ideal context to investigate leadership behavior due to the similarity of teams and leagues, as well as the public accessibility of data (Johnson et al., 2017; Wolfe et al., 2005).

Coaches face constant scrutiny due to the public's continual consumption of sport. The head coach takes accountability for the outcome of games and serves as the figurehead who shoulders blame from the public when the team performs poorly (Rowe et al., 2005). This point is particularly relevant in college athletics where coaches plan strategically for the long term in their recruiting efforts, but still face the pressure from various stakeholders to excel in the short term (Johnson et al., 2017;

Rechner & Dalton, 1991; Soebbing & Washington, 2011). Coaching performances are constantly monitored by fans, donors, parents, and administration. The public regularly speculates about the stability of coaching positions.

There have been numerous leadership theories that explain performance and succession. Following a new coaching hire, Common Sense Theory (Grusky, 1963) suggests that replacing an underperforming coach with a new coach should lead to more success (Dohrn et al., 2015; Maxcy, 2013). Ritual Scapegoating Theory (Gamson & Scotch, 1964) implies that coaches are the ones who are blamed, but the program experiences only marginal changes after coaching turnover (Dohrn et al., 2015; Johnson et al., 2017). Vicious Cycle Theory (Grusky, 1960) proposes that firing coaches results in a continuous cycle of hiring, underperforming, and rehiring, instead of an improved team performance.

Differing from the preceding theories that predict performance after a coaching change has occurred, there are two competing theories rooted in business and used to investigate a specific length of tenure. Human Capital Theory suggests that as individuals acquire knowledge and experience within a job, their performance will improve and tenure will increase (Schmidt et al., 1986). In contrast, Job Design Theory (Hackman & Oldham, 1976) predicts that any improvements in experience would be countered by feelings of increased boredom and decreased intrinsic motivation. Job Design Theory is generally supported by research (Ng & Feldman, 2013), but the concepts have not been tested in sport contexts where in high-profile sports, coaches routinely move from job to job mostly based on competition results.

Tenure, Success, & Change

Hot seats and *short leashes* are colloquial terms used in discussions about coaching tenure to justify retaining or firing a coach (Johnson et al, 2018; Miller, 2018). Much of those discussions revolve around the athletic outcomes. On–field success has been a predictor of coaching change at the college and professional levels throughout history (Cook & Glass, 2013; Fee et al., 2006; Goff et al., 2019; Humphreys et al., 2016; Johnson et al., 2012; Roach, 2013). Empirical evidence shows that winning is directly correlated with coaching tenure where total wins or win percentage as the most prevalent dependent variable (Fee et al., 2006; Johnson et al., 2013, 2017, 2018; Tracy et al., 2018).

Vicious Cycle Theory suggests that firing a coach due to losing may be a mistake that causes an organization continued underperformance. Roach (2013) found that NFL teams perform worse for the two seasons immediately after firing their head coach. Goff et al. (2019), however, noted that head coaching change in professional sport did have a slight increase in wins per season, but the increase was too small to be deemed significant. They also explained the skill of the existing coach in comparison to other available coaches is essential for decision–making.

Collegiate sport is certainly a multifaceted system where education plays a significant role and where winning is valued. Not surprisingly, in a quantitative analysis of 414 coaching changes in seven NCAA Division I team sports from 2010 to 2020, Johnson et al. (2023) found that a coach's winning percentage at a particular school

has a significant positive correlation with the length of their tenure at that school. However, the pedigree of the program (as measured by the school's winning percentage in the short term and long term before that coach's arrival) does not have a significant correlation with the length of that coach's tenure.

Similar to Roach's (2013) evaluation of professional football, Soebbing and Washington (2011) found that after a coaching change in college football there is a short–term drop in winning followed by stable improvement over time. This indicates further that coaching decisions based on winning should be reevaluated depending on the institution's goals. Moreover, in a qualitative case study of an NCAA team that had experienced a coaching change, Forsythe et al. (2019) noted student–athletes' experiencing a coaching change identified a shift in thinking and increase in anxiety.

When examining winning relative to tenure, Humphreys et al. (2016) examined winning percentage relative to point spreads in betting markets (rather than conventional winning percentages) of 102 Division I football programs from 1980-2004. They noted that even when a team lost, there was a "performance compared to expectations" (p. 489). They explained that meeting expectations is important to remain the head coach, even if those expectations include losing at times. Based on those expectations, the evaluation of coaches aligns closely with tenure. Johnson et al. (2013) found that negative changes (i.e., coach fired) increase as winning percentages decrease. Tracy et al. (2018) found that years one spent winning as a head and assistant coach are significant predictors of attaining one's head coaching position, in a study of 200 first-time NCAA Division I football coaches from 1998-2014. Thus, winning is a crucial factor regarding coaching tenure, so any study must acknowledge these findings and include winning as an independent variable.

Variables Beyond Winning

Winning is at the center of college athletics, but other variables are also likely to influence the nature of change of head coaches. Collegiate sport is within a system of higher education where other sociocultural variables will impact the tenure of coaches positively or negatively. Academic performance, eligibility requirements, commercialization of sport, and the progressive nature of a college campus make the context of coaching collegiate athletics unique (Knight Commission, 2021; Sperber, 2001; Weiner, 2009). Additionally, variables such as sport and sex could influence how a coach transitions in or out of a position. For example, Johnson et al. (2023) found that revenue sports and men's sports have significantly shorter and more negative coaching tenures compared to Olympic sports and women's sports when measured by number of games. However, when measuring by number of seasons, football actually had longer coaching tenures than Olympic sports and women's sports. The types of variables are certainly worth considering in addition to the following concepts.

Academics

Within the context of higher education, coaches must consider academic programs and institutional reputations when recruiting players. The Academic Progress

Rate (APR) is the metric used by the NCAA to determine academic performance. Using individual academic eligibility and retention scores, the NCAA calculates an overall team score. Head coaches presumably determine guidelines for their players' academic responsibilities. Some coaches have performance bonuses in their contracts if their team reaches a particular APR benchmark, and they are presumably deemed responsible if their team fails to meet the benchmark. A team's academic performance has impacted coaching tenure, but these instances are rare, as Avery et al. (2016) found in a quantitative analysis of 697 coaching changes in NCAA Division I basketball and football. APR may not have as large of an impact on coaching tenure directly, but there are many plausible connections between winning and academic performance. Johnson et al. (2013) found that the top third of football teams in terms of winning percentage had a much higher APR score on average than the teams with lower winning percentages. Even though higher APR scores are associated with a higher winning percentage, Avery et al. (2016) found that APR is used more commonly for negative coaching changes rather than a promotion or increase in salary. This implies that APR should be considered but may not be rewarded on the same scale as winning. Johnson et al. (2023) also found that APR does not have a significant correlation with the length of a coach's tenure, a curious finding given the mission of higher education. Rubin and Huml (2023) reaffirmed the impact of a coaching change in a qualitative study of 16 academic advisors at NCAA Division I institutions. They concluded that coaching changes can have a noticeable impact on the culture related to academic performance, and the nature of that impact (positive or negative) is often evident from the time of change.

Alumni

There is an assumption that coaches who are alumni will have existing relationships within and attached to the university that will support the coach and their decisions. The Social Learning Theory developed by Krumboltz et al. (1976) shows that experience in a context allows for easier adaptation and increased familiarity within the occupation. In an athletic department, this could mean that an alumnus may enjoy a longer buffer period and/or increased loyalty, compared to coaches who are not alumni. This phenomenon was supported by Nesseler et al. (2021) in a quantitative analysis of women's collegiate soccer coaches from 1977 to 2015 – specifically, that coaches with such alumni status experienced a longer tenure than their counterparts who were not alumni. Johnson et al. (2023) found that alumni status had a significant positive correlation with the length of a coach's tenure in a variety of sports. Similarly, in a study about FBS football assistant coaches, Tracy et al. (2018) found that playing and coaching at their alma mater was the strongest predictor of retaining the head coaching position. A coach's alumni status was more predictive than previous winning seasons or playoff experience. In slight contrast, a different study of football coaches by Allen and Chadwick (2012) found being an alumnus in professional football (coaching the same team one had previously played for) did not influence tenure as much as winning. Given the mixed findings and common practice of hiring alums in coaching positions, it is reasonable to consider this a variable likely to influence the nature of coaching change.

Nature of Change

Johnson and co-authors (2012, 2015, 2017) have found that nature of a coaching change is relevant to succession and tenure. Whether the change was positive or negative, performance– or non–performance–related, success was impacted. Positive changes are those resulting in promotion, successful retirement, or leaving for a better position. Negative changes include common firings and resignation (Cunningham & Dixon, 2003; Johnson et al., 2012, 2013, 2015, 2017, 2018). Depending on the context of succession, there were significant predictors of success following a coaching change. In NCAA Division I basketball, when changes are attributable to positive performance and negative non–performance reasons, wins next season decrease slightly (Vicious Cycle Theory). In contrast, when changes are attributable to negative performance, the wins next season increase slightly (Common Sense Theory). APR scores are also impacted depending on the nature of change. In a quantitative analysis of all 160 teams in NCAA Division I football from 2003 to 2011, Johnson et al. (2013) found that a positive head coaching change produced scores 12.3 points higher than a negative change, and 24.6 points higher if the coach is retained. Likewise, in studies on APR scores following coaching changes in FBS football (Johnson et al., 2013), FCS football (Johnson et al., 2015), and men's basketball (Johnson et al., 2018), positive coaching changes indicated higher post–succession APR scores. There is a clear connection between the nature of change and the results of the program, but because the expectations for winning and APR are not rewarded and punished the same, there is a disconnect between what coaches should value the most.

The literature demonstrates that nature of a coaching change has a direct relationship with both academic and athletic outcomes. Coaching evaluations are linked to the nature of change because negative changes (i.e., coach fired) increase as winning percentages decrease. APR scores also decrease for negative changes (Johnson et al., 2013). Any study examining coaching change must acknowledge the post–facto differences in athletic and academic outcomes based on the nature of change, and thus include nature of change as part of an administrative evaluation of how best to navigate coaching succession. Doing so will allow stakeholders to predict the likely outcomes of leadership change based on the nature of change itself, and ultimately provide targeted support based on the nature of the change.

Method

Coaching changes (N = 414) during a 10–year period (2010–2020) were collected and analyzed using a descriptive analytical historical design (Sterling et al., 2017). A partial replication (Morrison, 2021) of the Johnson et al. (2023) study on coaching tenure was also implemented with nature of change the dependent variable that required isolated analyses. The time span was chosen because it provided a decade of data before college athletics was disrupted by the COVID–19 pandemic. Excluding the years after 2020 was necessary because the variables used to predict the nature of coaching change were not consistent during the pandemic years and would have provided inconsistent data. Thus, this decade of data was the most recent

that would resemble college athletics pre and post pandemic. If there were multiple head coaches at the same institution during the 10–year time frame each was treated as a unique head coaching change.

Procedurally, seven team sports (men's baseball, basketball, and football; women's soccer, softball, and volleyball) from the Power Five and Group of Five conferences were selected for analysis due to the public availability of data, particularly within the highly publicized environment of NCAA Division I. The team sports chosen are the most common sports found at all Power Five and Group of Five conference institutions, which allowed for comparisons among sports and adequate coverage of the coaching change. Athletic department media guides were used to collect all information except APR and nature of change (see Table 1 for variable definitions). APR information was collected using the NCAA Head Coach APR portfolio (NCAA, 2023). All variables were stored in a password–protected electronic database.

Table 1. *Variable Definitions*

Alumni	head coach was an alumnus of the university
APR	academic progress rate during the tenure of the head coach.
First HC Position	first head coaching position at any college level
Sex (sport)	sex of team
Sex (coach)	sex of the coach
Positive Change	"leaving for a more prominent coaching position after success, retired voluntarily with a history of success, or was promoted to athletic director because of accomplishments" (Johnson et al., 2018, p. 150)
Negative Change	"fired, resigning after a lack of success, scandal, or other negative circumstances where resignation or termination occurred" (Johnson et al., 2018, p. 150).
Sport	Team sports data from Power Five and Group of Five conferences were collected. The men's sports included baseball, basketball, and football. The women's sports included basketball, soccer, softball, and volleyball.
Tenure	The amount of time in months the head coach was employed.
Wins (coach)	Conference games were used to determine coach win % because it is a more consistent gauge of coaching success (Canella & Rowe, 1995; Johnson et al., 2017). This variable is the conference coaching win %. Changing conferences did not impact the analysis of wins as each season was independent of the others no matter the conference they were in the prior year.
Wins (program)	The conference winning % prior to when the head coach was hired.
Wins 10 years prior	The conference winning % 10 years prior to when the head coach was hired.
Wins 5 years prior	The conference winning % 5 years prior to when the head coach was hired.

The dependent variable – nature of head coaching change – was adopted from the work of Johnson et al. (2013, 2015, 2018). Similar to those studies, researchers utilized multiple data coders recommended by Neuendorf (2002) to analyze the most informational media source about the coaching change. The sources were normally the local city or university newspaper with the most coverage of the coaching change. This process required researchers to first identity the story, and then utilize that story to make interpretations about the nature of the coaching change. Specifically, each coder reviewed the story in tandem with the coaching record and decided if the change was positive (i.e., took a more prominent head coaching position, retired after success, or took a new position after athletic success) or negative (i.e., fired, resigned due to lack of success or ethical issue). The minimum intercoder reliability recommended by Neuendorf is 80%. Coders for this study resulted in 98% intercoder agreement. Overwhelmingly, the reasons for the head coaching change were clearly identifiable except for a few isolated examples were the primary researcher made the final decision.

The data analysis included three steps. First, to provide context to the sample, measures of central tendency were calculated from frequency data. Next, Pearson correlations were used to determine the relationships of each variable to the dependent variable *nature of change*. Finally, the prediction value of each variable was determined by conducting a binary logistic regression analysis. The regression was designed to address the second hypothesis and provide data that can be used to intervene on coaching decisions.

Results

Description information is included in Table 2. Among the more noteworthy findings, the mean coaching tenure for all sports was 48.49 months. Sex findings revealed there were more male head coaches (N = 331), and subsequently more coaching changes for male sports (58.2%). The mean winning % of all coaching changes in this study was .430 and 53.9% of coaching changes classified as negative. Most head coaches were not alumni (91.5%) and the mean APR score for all coaching changes was 967.55.

Table 2. *Descriptive Information– Power Five and Group of Five Coaching Head Coach Changes (2010–2020 – pre–pandemic)*

Variable	*n*	%	*M*	*SD*
Tenure (months)	414	100	48.49	21.40
Sex of Sport (Female)	173	41.8		
Sex of Sport (Male)	241	58.2		
Sex of Coach (Female)	83	20		
Sex of Coach (Male)	331	80		
Win % of Coach	414	100	.43	.20
Wins for Coaches	414	100	25.8	21.2
Losses for Coaches	414	100	35.07	25.93
Wins for Program Prior to New Coach	396		270.03	211.78
Losses for Program	396		256.61	192.24
Win % (10 years prior to coach change)	400		.48	.15
Win % (5 years prior to coach change)	403		.46	.17
First Head Coach Position – Yes	175	42.3		
First Head Coach Position – No	232	56		
Alumni – Yes	35	8.5		
Alumni – No	379	91.5		
APR During Coach Tenure	399		967.55	23.83
Positive Coaching Change	176	42.5		
Negative Coaching Change	223	53.9		

Sport and sex information is displayed in Table 3. The two most commercially popular sports of football and men's basketball had the most coaching changes (208 combined), while the diamond sports of baseball and softball had the least (73 combined). Baseball had the most games before a coaching change (114), and football had the least (29.59). Mean winning percentages were similar, but none of the sports had mean winning percentages over 50%. Both men's and women's basketball had the most negative coaching changes at 68.8% and 64.4%, respectfully.

Table 3. *Sport and Sex Head Coach Changes*

	Total Number of Head Coach Changes (% of all changes)	Mean Number of Games Before Coaching Change (SD)	Mean Win % During Coaches' Tenure	% of Negative Head Coach Changes
Sport				
Football	128 (30.9)	29.59 (13.88)	45.9%	60.2%
Men's Basketball	80 (19.3)	71.71 (34.06)	43.6%	68.8%
Women's Basketball	46 (11.1)	69.13 (28.09)	38.4%	64.4%
Women's Soccer	43 (10.4)	38.95 (20.72)	43.1%	33.3%
Women's Volleyball	44 (10.6)	81.34 (38.47)	36.9%	46.3%
Baseball	33 (8)	114 (56.65)	43.1%	58.1%
Softball	40 (9.7)	91.8 (41.93)	42.6%	34.2%
Coach Sex				
Female	83 (20)	75.62 (38.48)	41.3%	43.4%
Male	331 (80)	57.76 (41.57)	43.2%	58.8%

Pearson correlations revealed six variables were significantly correlated with nature of change at the .05 alpha level; Months of Tenure ($r = .12$, $p = .024$), Sex of Sport ($r = .16$, $p < .01$), Sex of Coach ($r = .12$, $p = .017$), Wins of the Coach ($r = .11$, $p = .034$*), Overall Wins of the Program ($r = .18$, $p < .01$), and Wins 10 Years Prior ($r = –.10$, $p = .048$). Variables that were not significantly related to nature of change were Wins 5 Years Prior ($r = –.08$, $p = .121$), First Head Coach Position ($r = –.06$, $p = .280$), Alumni ($r = .09$, $p = .094$), and APR ($r = .05$, $p = .370$). The strongest relationship was overall wins of the program prior to the head coach being hired.

Results of the binary logistic regression indicated there was a significant association among nature of coaching change and the variables investigated in this study, $x^2 (8) = 42.67$, $p < .01$. The model explained 14.6% (Nagelkerke R^2) of the variance in nature of coaching change and correctly classified 63.1% of cases. Results demonstrated the chance of having a negative coaching change decreased as wins of the coach and wins of the program 10 years prior increased. The chance of having a positive change decreased as overall wins of the program increased. Being an alumni coach also increased the odds of a negative coaching change. Finally, as APR scores increased so did the chance of having a negative coaching change. Binary logistic regression results are displayed in Table 4.

Table 4. *Binary Regression Results*

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
							Lower	Upper
Sex (sport; F=0, M=1)	.683	.357	3.658	1	.056	1.980	.983	3.987
Sex (coach; F=0, M=1)	.196	.355	.304	1	.581	1.216	.606	2.440
Wins (coach)	–.018	.006	8.857	1	.003**	.982	.971	.994
Wins (program)	.002	.001	8.109	1	.004**	1.002	1.001	1.003
Win% (–10 program).	–2.962	1.471	4.053	1	.044*	.052	.003	.925
Win% (–5 program)	1.203	1.270	.897	1	.344	3.330	.276	40.162
First HC position? (0=N, 1=Y)	–.282	.235	1.444	1	.229	.754	.476	1.195
Alum? (0=N, 1=Y)	.858	.430	3.983	1	.046*	2.360	1.015	5.483
APR for coach	.018	.008	5.535	1	.019*	1.018	1.003	1.034

*=$p < .05$, **=$p < .01$

Discussion

Descriptively, the mean tenure for all coaches was 48.49 months, indicative of a high rate of turnover for head coaches in intercollegiate athletics. The length of this span, very close to four years, is noteworthy. This finding corresponds to the length of time a typical student–athlete cycles through eligibility, so for at least three (possibly four) of those four years, a head coach is leading a team partially constructed by their predecessor. A coach with an average–length tenure might have one season to lead a team consisting entirely of their own recruits before their stint ends. This reinforces the challenge for coaches to balance the priorities of short–term success and long–term vision (Johnson et al., 2017; Rechner & Dalton, 1991; Soebbing & Washington, 2011).

Months of tenure ($r = .12$, $p = .024$) was found to have a significant correlation with nature of change. Longer tenures were more likely to end with a positive change (leaving for a more prominent coaching position after success, retired voluntarily with a history of success, or was promoted to athletic director because of accomplishments), and shorter tenures were more likely to end with a negative change (fired, resigning after a lack of success, scandal, or other negative circumstances where resignation or termination occurred). This result seems intuitive, but it carries at least one important implication. If a coach manages to parlay success at one program into an opportunity at a more prominent program, they must invest a considerable amount of time at the original institution before such a move.

Differences by Sport and Sex

Overall, most coaching changes (55.8% of applicable changes) were negative. Furthermore, revenue sports stood out regarding the frequency of negative changes. Coaching changes in men's basketball (68.8% negative), women's basketball (64.4% negative), and football (60.2% negative) were especially likely to end poorly. This

phenomenon reinforces the commercialization associated with these elite Division I sports. Conversely, women's soccer (33.3% negative) and softball (34.2% negative) had dramatically lower frequencies of negative changes. Women's volleyball (46.3% negative) and baseball (58.1% negative) lie in the middle. Based on these results, administrators would, on average, need to plan differently for a transition in revenue sports vs. women's soccer and softball, and potentially women's volleyball. The coaching transition for revenue sports would likely have more tension points than women's soccer and softball given the lower academic and athletic outcomes following negative coaching changes (Johnson et al., 2013, 2023). Moreover, administrators may specifically consider softball and women's soccer, and more generally consider women's sports, as a lesson in patience that longer tenures could lead to more positive transitions.

In addition to nature of change, the average length of coaching tenure is another way to assess pressure, and this concept is nuanced (Johnson et al., 2023). If measuring purely by mean number of games before a coaching change, football (29.59 games) appears to place the highest amount of pressure on coaches, and baseball (114 games) the lowest. Women's soccer (38.95 games), women's basketball (69.13 games), men's basketball (71.71 games), women's volleyball (81.34 games), and softball (91.8 games) lie in the middle. The short number of games for football adds another element of pressure in a sport where coaches are most visible to the public, which presents an extended element of pressure in itself (Rowe et al., 2005).

It is important, however, to contextualize the number of games in a season by sport. This perspective involves the consideration that a typical conference game schedule for Division I football includes approximately 8 games, women's soccer approximately 10 conference games, women's and men's basketball approximately 18 conference games, women's volleyball approximately 20 games, softball 20–25 games, and baseball 25–30 games, then dividing the average length of coaching tenure by the applicable number of conference games. By doing so, it appears that all sports' average length of coaching tenure is relatively close to four conference seasons. Football's average span appears to be just slightly below the four–season mark, and slightly below the other sports. This finding, in addition to the high percentage of negative coaching changes, implies football coaches may face greater pressure for wins, especially when viewed on a per–game (not per–season) basis.

The most noticeable difference by sex is the disparity in number of head coaching positions held. Men held 331 (80%) of the coaching positions studied, and women held 83 (20%). Of the coaching stints studied, men and women had similar winning percentages (43.2% and 41.3% respectively), yet male coaches were much more likely to have their stint end with a negative change (58.8% of male coaching stints ended with a negative change, compared to only 43.4% of female coaching stints). In fact, Sex of Sport ($r = .16$, $p < .01$) and Sex of Coach ($r = .12$, $p = .017$) were among the strongest significant correlations with nature of change. This finding certainly overlaps with the type of sport and reinforces that in the historically male–centric environment of college sport that men's sports and male coaches are typically more scrutinized (Coakley, 2020). This finding also reinforces that female

coaches stay longer in their coaching roles and transition more positively than their male peers, a finding that could be explained by research indicating female coaches having stronger personal relationships with their players and coaching staffs (Machida–Kosuga, 2021; Swim et al., 2022).

Winning

Although sport and sex have important relationships with nature of change, and many coaches must navigate challenges distinct from winning (Knight Commission, 2021; Sperber, 2001; Weiner, 2009), winning still proved to be the most significant factor when considering the combination of descriptive statistics, correlations, and regression results. This confirmed Hypotheses 1 and 2, and reinforced elements of previous studies (Fee at al., 2006; Humphreys et al., 2016; Johnson et al., 2012, 2013, 2017, 2018; Tracy et al., 2018).

Wins of the Coach (r = .11, p = .034) had a significant correlation with nature of coaching change, which is not surprising. Overall, a greater number of wins by a coach was more likely to be associated with a positive change at the end of the stint. Similar to Months of Tenure discussed above, there is a noteworthy underlying implication. Specifically, it appears that coaches typically need to have sustained success in order to enjoy a positive change at the end of their stint – a hot start alone generally is not enough to result in a promotion or more prominent coaching position. In turn, a positive coaching change typically ensures better athletic and academic outcomes after the change.

The mean winning percentage of all coaching stints studied was .43. Interestingly, programs' mean winning percentage for the five years preceding a coaching change (.46), and for the ten years preceding a coaching change (.48), were both higher than the winning percentage of the new coach. This indicates that most coaching changes do not result in the desired improvement in on–field success, which refutes elements of previous studies (Dohrn et al., 2015; Maxcy, 2013) and reinforces the Vicious Cycle Theory (Grusky, 1960). This finding has pragmatic implications as well because if there is pressure to fire a coach, but firing generally does not improve athletic or academic performance – and often comes with significant pay increases for a new coach – an administrator must consider their options.

Johnson et al. (2023) had previously found that Overall Wins of the Program (preceding a coaching change) and Wins 10 Years Prior (to a coaching change), were not significantly correlated with the *length* of a coach's tenure. However, in this study, both of these variables were found to have significant correlations with the *nature* of coaching change and were predictors of nature of change. Surprisingly, however, these relationships went in different directions. The greater number of wins overall that a program had prior to a coaching change, the *more* likely that coach would ultimately experience a negative change (r = .18, p <.01). This supports the notion that programs with a long tradition of success often have unrealistically high expectations when a coach is replaced. Conversely, the greater number of wins that a program had in the 10 years prior to a coaching change, the *less* likely that coach would ultimately experience a negative change (r = –.10, p = .048). In other words,

consistent (but recent) success was more likely to lead to a positive change for a coach, compared to a longer tradition of success. This suggests that programs with an overall tradition of winning, but who have endured an uncharacteristic lack of success in recent years, can fall behind and may be in danger of fueling a vicious cycle (Grusky, 1960). Programs with more recent success (perhaps due to recent coaching, facilities, investments, etc.) use that momentum to fuel a positive cycle (Common Sense Theory, [Grusky, 1960]). It is also possible that the administrators who hired the previously successful coach are still in place to hire the next coach and extend a particular philosophy.

Other Factors

This study also examined academics, alumni status, and whether a coach was in their first head coaching position, but none of these factors had a significant correlation to nature of change. Academics, as measured by APR, did prove to be predictive of nature of change, but in a somewhat troubling way: as APR increases, the likelihood of a negative coaching change also increases. This partially refutes a study by Avery et al. (2016) which indicated academic performance does not have a significant (positive or negative) impact on coaching tenure. This does give credence to the work of Rubin and Huml (2023), which instead framed coaching change as the possible antecedent (rather than consequent) in relation to changes in academic culture and performance. When combined with the work of Johnson et al. (2012, 2015) suggesting head coaching changes negatively impact APR scores, there is a clear pattern of leadership changes on academic performance that cannot be ignored.

The mathematically negative correlation between APR and nature of coaching change is inconsistent with the mission of intercollegiate athletics. Education and the development of college athletes are key tenets in the NCAA's mission (NCAA, 2021), yet a coach's contribution to a team's academic accomplishments do not seem to be acknowledged by institutions. In fact, academic success is more likely to lead to a negative coaching change. This finding suggests coaches and student–athletes are in a very difficult position. It is assumed most student–athletes value education and development as part of their overall experience in intercollegiate athletics, and so coaches prioritize education in their messaging during the recruiting process (Hosick, 2010). However, a coach's career trajectory is more favorable if they ultimately prioritize winning, rather than APR scores.

Previous studies have explored the relationship between a coach's alumni status and the length of their tenure, indicating a positive correlation (Johnson et al., 2023; Nesseler et al., 2012; Tracy et al., 2018). However, this study explored nature of coaching change rather than length of tenure and alumni status was found to have predictive value. If a coach was an alum of the program, the more likely their coaching stint would end with a negative change. This seemingly nullifies the advantages one would expect an alumni coach to enjoy. It is important, however, to note the very low number of coaches that are alumni and exercise caution when interpreting this finding.

It is rare that an individual's first coaching position ultimately proves to be the same position from which they retire. It is much more likely they will experience change at some point in their tenure, whether it be a negative change (such as a firing, indicative of the lessons to be learned and areas to be improved that one might expect in a first–time head coach) or a positive change (such as leaving for a more prominent program after enjoying a successful and promising start to their coaching career). With this in mind, this study also examined individuals who were in their first head coaching position. The study found that first-time head coaching position did not have a significant correlation to nature of change, nor did it have a significant predictive value for nature of change. It appears first–time head coaches are not significantly more likely to have their first stint end in either a positive or negative way. This finding aligns with Johnson et al. (2023) who found that first head coaching position was not predictive of the length of coaching tenure.

Implications

There are both practical and theoretical implications. Pragmatically, to determine how these findings would influence college coaches it is first important to acknowledge that winning is most often prioritized in coaching decisions above APR, even though APR is more aligned with NCAA and institutional missions. In fact, positive coaching changes have been found to be correlated with higher APR, and the year-after-year retention of coaches has been shown to have an even stronger correlation with high APR (Johnson et al., 2013, 2015, 2018). This result suggests that if athletic directors are serious about the academic experience of college athletes they should include a potential decline in APR scores into their leadership change decisions.

Athletically, coaches following previous coaches with negative changes (i.e., predecessor was fired) do not generally produce the desired improvement in winning that was likely to be the catalyst of the negative change. Instead, programs in this study had a higher winning percentage in the 5–year and 10–year spans before a coaching change than they did after the change. Athletic directors and university leaders are encouraged to acknowledge the historical performance of their teams and the likely outcomes of their leadership change decisions. If, for example, an athletic director decides to fire coaches as a response to internal or external pressure for a lack of winning, they should know their decision will more often than not lead to neutral or negative athletic results and will likely have to pay a higher salary to the next coach (Sander, 2011).

Practical implications also emerge from the finding that the average coach tenure is roughly four years, or a typical recruiting cycle. Aiming to keep coaches longer than the four–season average would be a promising start that could increase the chance of ending a coaching relationship positively. This practical suggestion is especially important in an age where name, image, and likeness (NIL) compensation, combined with a heightened use of the transfer portal, allow college athletes to easily change teams. If, for example, a basketball coach has a successful season (athletically), and players leave for NIL compensation at other institutions, the coach may be

left with a depleted team (and an APR decrease due to retention points lost). Firing coaches in this scenario may be presumptuous, especially if they did not recruit the athletes, and have not developed the type of relationships that would encourage loyalty to a program. Allowing more time for coaches to recruit and establish a culture would be a pragmatic suggestion.

The aforementioned implications are also important from a coach's perspective. Coaches can use this information to make choices about the type of contracts they sign, what priorities are emphasized within the program, and how to best help athletes if a negative change occurs. These realizations could lead to a variety of policy changes that encourage additional academic support during times of transition, or negotiations with administration about the time it can take to cultivate a successful athletic program, both athletically and academically. In turn, professional coaching organizations can use this information to lobby for longer coaching contracts that encourages a more holistic approach to coaching evaluations, rather than an overemphasis on winning.

Theoretically, the results are supported by Vicious Cycle Theory (Grusky, 1960) and Ritual Scapegoating Theory (Gamson & Scotch, 1964) suggesting that leadership changes are neutral at best and negative at worst, especially given the potential adverse effect of anxiety and decreased academic performance when coaching changes occur (Forsythe et al., 2019; Johnson et al., 2013, 2015, 2018). By lengthening coaching contracts, programs would be able to foster the type of stability that Vicious Cycle Theory (Grusky, 1960) contends is lost through persistent changes, particularly if those changes are negative and initiated by an athletic director after a lack of winning. Longer–than–average coaching stints would also allow coaches to complete more than one full cycle of recruits, and continue improvement by gaining additional knowledge and experience, as supported by Human Capital Theory (Schmidt et al., 1986). Thus, the theoretical inference is to reject Job Design Theory and support theories that advocate increased knowledge acquisition and improvement rather than expediated changes that lead to a vicious cycle of athletic mediocrity and academic decline.

Limitations and Future Research

There are two primary limitations. First, the number of variables investigated in this study was limited to those that were already supported by research and readily available. There are, however, many other potential variables that could be related or predictive of nature of change. For example, recruiting metrics or an objective measure of team talent could be predictive. Institutional type/size, administrative philosophy, or a more specific analysis of individual sports are other potential variables to consider. Future research should build from this work to extend the number or categories of variables to provide further insight into nature of change.

Second, this study was limited to the definitions for positive and negative change from Johnson et al. (2012, 2013, 2015, 2017, 2018). It is certainly reasonable to adapt these definitions to be more specific for administrative decision-making. For example, fired and promoted are obvious categories, but other categories like retired

or medical could add additional nuance to these definitions. Future research could explore expanded definitions, which could influence additional types of variables suggested in the first recommendation.

Conclusion

Nature of coaching change is an important variable in the larger leadership change dynamic. With evidence suggesting athletic and academic performance decrease following a negative change, it is imperative to understand and predict nature change. Winning has the strongest correlation of whether a coach's stint will end with a positive or negative change, confirming the three hypotheses of this study. The greater a coach's own win total during their tenure, and the greater a program's win total in the 10 years preceding their tenure, the more likely that coach's stint is to end in with a positive change. Conversely, the greater a program's win total throughout the history preceding a coach's tenure, the less likely that coach's stint is to end with a positive change. A coach's sex provides additional clues regarding nature of change, with female coaches considerably less likely to experience a negative change. However, the revenue status of the sport is more telling with men's basketball, women's basketball, and football coaches experiencing the most negative changes. Pragmatically, the results suggest coaches should be given more than the mean of four years to develop a culture that could lead to positive changes, especially given the support for vicious cycle theory indicating in decline in both athletic and academic performance resulting from a negative head coaching change.

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Understanding The Lived Experiences of Black Female College Athletes and Factors that Influence their Anxiety

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To inform the development of culturally and socially appropriate interventions, this study examined the lived experiences of Black female college athletes (BFCAs) and identified sources that increase their vulnerability to anxiety. Black Feminist Thought, with sub-tenets of intersectionality and outsider within status, was used as the theoretical foundation to examine the lives of the BFCAs. Using an interpretative phenomenological approach, this qualitative study addressed the question: What sociocultural factors affect anxiety in Black female college athletes? Nine Black female college athletes from an NCAA Division I program agreed to participate in this study. Regarding the sources of anxiety, four themes emerged: regimented schedule (subthemes: lack of freedom, decreased choices, and external locus), forced community (subthemes: isolation and team conflict), emphasis on athletics (subthemes: coaching pressures, training pressures, and academic pressures) and navigating marginalization (subthemes: gender and racial stereotypes and gender and racial inequality). Two unexpected themes also materialized: family support and suggested solutions (subthemes: representation and communication). The findings and analysis were based on the data collected and the theoretical lens. The results suggest the need for culturally appropriate interventions to support this specific college athlete population.

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Introduction

College students are susceptible to increased levels of anxiety, with over 50% experiencing overwhelming anxiety during their college years (Wilkerson et al., 2022). These stresses are compounded for college athletes as they face additional pressures due to their athletic obligations (Holden et al., 2019). Approximately, 45% of college student-athletes report symptoms of anxiety outside the normal ranges (Drew & Matthews, 2019). Addressing elevated anxiety levels is crucial in the college athletic population as it leads to deteriorating physical and mental conditions, including risky behavior, depression, substance abuse, insomnia, and suicide (Junge & Feddermann-Demont, 2016; NCAA Sports Institute, 2020).

Until 2021, research on college athletes predominantly examined anxiety's influence on sports performance and well-being, with a bias toward Caucasian student-athletes (NCAA Sports Institute, 2020; Watson, 2016). However, as mental health challenges are more prevalent among athletes of color due to the added burden of racial and gender stressors (Minority Stress), this underrepresentation of racially diverse athletes in literature creates a notable void in applying research outcomes to address their unique needs (Senne, 2016).

Black female college athletes (BFCAs) occupy a prominent position within the racially diverse athletic population that is unfortunately underrepresented in research efforts aimed at addressing mental health issues (Cooper et al., 2020). These athletes face a unique set of challenges, being vulnerable not only to academic and athletic stressors but also to the psychological strain resulting from racial and gender isolation and discrimination (Duncan, 2015; Mays et al., 2016). As a result, BFCAs are more susceptible to elevated levels of anxiety, making it imperative to focus on understanding and mitigating their mental health concerns to ensure their overall well-being and success.

Purpose Statement

Responding to the identified research gap, our study employed a qualitative approach to purposefully explore the nuanced experiences of BFCAs in the context of both their academic and athletic pursuits. The primary objective was to discern the sociocultural factors that contributed significantly to their heightened vulnerability to anxiety. The research comprehensively delved into the intricate web of factors that influenced anxiety levels within this specific demographic, encompassing, but not confined to, academic pressures, athletic performance expectations, racial and gender-related stressors, and the profound impact of societal perceptions.

The examination of sociocultural determinants affecting anxiety in BFCAs is imperative as it serves as a linchpin, to not only guide the development of precision-targeted interventions aimed at ameliorating poor mental well-being in this cohort but also serve as a catalyst to rectify disparities, optimize both academic and athletic prowess, nurture inclusivity, and fortify a robust support system for this often marginalized yet resilient group of student-athletes. Ultimately, the consequential findings of this research are poised to instigate transformative shifts within the edu-

cational landscape of universities, endowing diverse student-athletes with comprehensive resources to not just succeed but to excel both academically and athletically.

This study was guided by the following research question:

> RQ1: What are the sociocultural factors that affect anxiety in Black female college athletes?

To address this question, we reviewed the current research on anxiety and college student-athletes, and the current literature on Black female college athletes' lived experiences.

Literature Review

College Athletes are at Increased Risk of Mental Health Distress (Anxiety)

Collegiate student-athletes navigate a complex web of stress, stemming from heightened demands in athletic participation, increased academic pressures, family and coach expectations, commercialized college athletics, and a strong athletic identity (Dalton & Hammen, 2018; Drew & Matthews, 2019; Parker et al., 2021; Wolanin et al., 2016). Moreover, college athletes face a myriad of stressors, including managing academic and athletic responsibilities, balancing time for studying and training, handling challenges related to travel and competition, coping with injuries, dealing with pressure to win, managing conflicts with coaches and teammates, and navigating social isolation and burnout (Johnson & Ivarsson, 2011). These distinctive factors in college athletes' lived experiences contribute to elevated rates of mental exhaustion, anxiety, and depression within this population (NCAA Sport Science Institute, 2020; Watson, 2016). Eighty percent of college athletes feel overwhelmed by the combination of academic responsibilities and demanding college athletics, leading to increased anxiety and compromised overall well-being (Wilson & Pritchard, 2005; Davoren & Hwang, 2014). The consequences are alarming, as heightened anxiety among college student-athletes leads to deteriorating physical and mental health, including risky behavior, depression, substance abuse, insomnia, and increased suicide risk (Junge & Feddermann-Demont, 2016). Hence, there have been efforts by the National Collegiate Athletic Association (NCAA) to reduce anxiety levels and improve mental health in college-level student-athletes. The formation of the NCAA's initiatives, such as the mental health toolkit, task force, and summit, reflects their commitment to addressing mental health issues in college athletes (Kroshus et al., 2023). However, despite the 2021 NCAA summit highlighting mental health needs in NCAA athletes of color, there remains a gap in addressing the specific mental health needs faced by BFCAs (Kroshus et al., 2023).

The Marginalization of the Black Woman and the Black Female Athlete

Black women in the United States face marginalization based on sexism and racism positioning them as outsiders in sociocultural spaces (Cooper & Newton, 2021; Rollins, 1985). These issues are systemic and entrenched in education, religion, politics, and broader culture (Carter-Francique, 2018). Given that Black women are dis-

proportionately affected by marginalization in society and serve as outsiders within their social context, it is not surprising that their mental well-being is negatively impacted. Perry et al. (2013) suggested racial and gender discrimination elevate the risk of poor health and well-being by increasing vulnerability to stressors (Perry et al., 2013). Increased anxiety levels, isolation, depression, and being silenced are often the results of marginalization (Perry et al., 2013). Yoder & Aniakudo (1997), examined African American female firefighters' social interactions in the workplace that led to the feeling of exclusion and isolation (outsiders within). Yoder & Aniakudo (1997) suggested African American female firefighters faced intertwined race and gender marginalization, experiencing issues like insufficient instructions, coworker hostility, silence, close supervision, lack of support, and stereotyping. This illustrates how Black women may experience exclusion and isolation despite being part of a social group, owing to inherent marginalization. As sports reflect broader societal issues, systemic challenges impacting Black women are also prevalent and amplified within the athletic realm (Cooper & Newton, 2021).

BFCAs experience gender and racial marginalization within sports, akin to Black women in society (Simien et al, 2019). For instance, BFCAs are often gender-specifically stereotyped as overly sexual, and racially stereotyped as unintelligent both on and off the court (Withycombe, 2011). The impact of this marginalization on the overall mental well-being of BFCAs cannot be overlooked. Furthermore, underrepresented women, including BFCAs, face significant disparities in NCAA athletic participation compared to White women (NCAA Sport Science Institute, 2020; Senne, 2016). White women comprise 30% of players, while Black women constitute only 5%, highlighting the underrepresentation of women of color (Norwood, 2019). Therefore, this exposes BFCAs to the outsider within phenomenon in their sports.

Black Female College Athletes (BFCAs), Minority Stress and Anxiety

BFCAs experience higher anxiety levels compared to their counterparts due to college athlete stressors and gender/racial marginalization, known as Minority Stress (Kroshus et al., 2023; Parker et al., 2021; Sadberry & Mobley, 2013; Williams, 2018).

Minority Stress is the psychological discomfort experienced by marginalized groups due to racial isolation and discrimination (Williams, 2018). BFCAs are susceptible to minority stress as this population embodies the unique intersectional nature of being fully woman and fully Black (Bernhard, 2014). College athletes experiencing minority stress will display self-segregation, reluctance to form relationships, feelings of disrespect, higher anxiety and depressive symptoms, and interpersonal issues (Sadberry & Mobley, 2013). Therefore, BFCAs are at higher risk of anxiety symptoms due to compounding stress as college athletes and the intersectional effects of racism and sexism (Carter-Francique, 2013). Considering the impact of this specific stress it is vital to understand anxiety origins and design effective interventions in this population.

Theoretical Framework

The lived experiences of BFCAs are characterized by racism, sexism, and classism which position them as outsiders in sociocultural spaces (Carter-Francique, 2013). Consequently, this has led to a constant state of stress, isolation, and anxiety (Collins, 1986). Mainstream sociological theories often marginalize BFCA's perspectives however, few critical scholars advocate the use of emic theories to understand their lived experiences (Ofoegbu, 2022; Simien et al., 2019).

A prominent Black feminist epistemology referred to as Black Feminist Thought (BFT) posits that Black women possess a unique consciousness to understand their sociocultural position (Keaton, 2022). BFT, conceptualized by Patricia Hill-Collins (1989), comprises three themes for the comprehensive examination of Black women's experiences in a broader social context. BFT themes postulate historical and material conditions shape Black women's perception of their social world, these ideas are commonly shared among other Black women, and their identities are expressed through the intersection of race, gender, class, sexuality, region, and age (Collins, 1989). These themes apply to BFCAs as they primarily identify as Black women before their athletic status.

Employing the BFT themes is pivotal for engaging with and understanding BFCAs, as this framework delved into their interpretations and perceptions of the athletic social sphere where they exist as outsiders within (Collins, 1986). Black women possess a unique understanding of their position within these social realms. Ransby (2003) underscores how outsiders possess an observant perspective but remain on the periphery of authentic belonging within the social context. For instance, Black women tending to White families in the mid-20th century were viewed as family by their employers, yet their awareness of incomplete acceptance compelled them to navigate their role cautiously as outsiders (Rollins, 1985). Similarly, BFCAs approach their collegiate athletic roles with similar vigilance, mirroring the cited example. Consequently, the BFT framework stood as an apt choice for studying this demographic, comprehensively addressing their marginalized encounters and the social inequities that amplify feelings of isolation and anxiety (Collins, 1989).

Finally, several scholars, such as Brunening et al. (2005), Carter and Hart (2010), Carter-Francique (2013), Ogunrinde (2022), and Smith (2000), have adeptly applied the BFT framework to comprehensively explore the experiences of Black women in the realm of sports. For instance, Ogunrinde (2022) employed BFT as a methodological framework to gain a profound socioecological insight into the participation of Black girls in sports. This research delved into the perspectives of Black girls, utilizing their voices and key dimensions of BFT to elucidate the intricate dynamics of sports as an institutional space. The collective efforts of these scholars underscore the significance of employing a BFT lens to deepen our understanding of the complex intersectionality of race, gender, and sports experiences for Black women and girls (Collins, 1986).

Intersectionality

Scholars in the fields of management and social psychology have highlighted the experiences of Black women as they navigate a complex social world entangled in multiple systems of marginalization (Keaton, 2022). Synthesized by Crenshaw (1989), intersectionality examines how Black women experience marginalization at the intersections of race, gender, and other social identities like class (Dhamoon, 2015; Keaton, 2022). Intersectionality also allows academic understanding of Black women's lived experiences in the context of multiple systems of oppression (Keaton, 2022). The term "intersectionality" originates from critical legal studies, where Black women faced challenges in winning legal cases based solely on gender or race discrimination, revealing the complexity of their identities (Crenshaw, 1989).

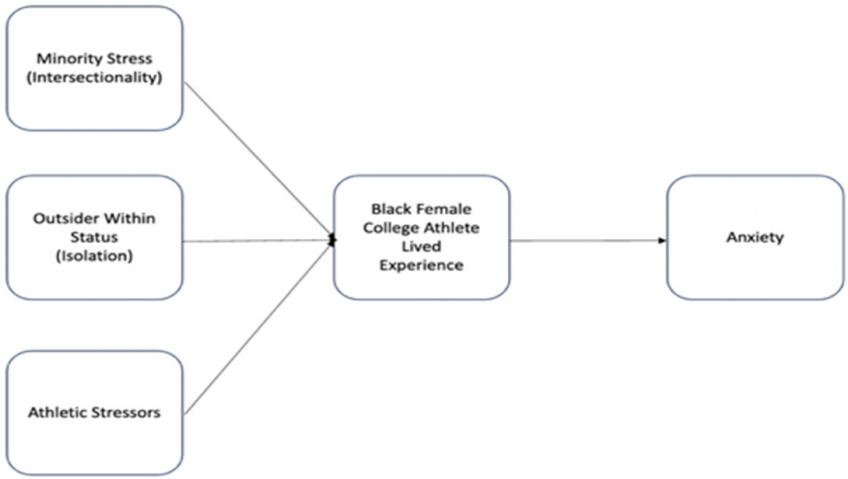
Sport management researchers commonly utilize the intersectionality framework as a theoretical guide for critical inquiry, shaping the study, interview questions, and analysis (McDowell & Carter-Francique, 2017). However, Collin and Bilge (2020) suggest intersectionality serves not only as a critical inquiry tool but also as a critical praxis for social problem-solving. Therefore, this research aligns with Collins and Bilge's (2020) perspective as it employed intersectionality to understand sociocultural factors impacting anxiety in BFCAs (Critical Inquiry) and to develop culturally appropriate interventions for this population (Critical Praxis).

Method

The study utilized an interpretative phenomenological approach (van Manen, 2017) to understand BFCA's lived experiences and the social-cultural factors influencing their anxiety. To grasp the intricate and subjective nature of anxiety, influenced by individual and societal factors like race and gender (Harris & Molock, 2000), an interpretive phenomenological methodology was essential (Smith & Osborn, 2008). Aligning with the purpose of interpretive phenomenological research, questions were crafted to explore how individuals understood and gave meaning to their experiences in their world (Smith et al., 2009). Interview questions focused on the participants' experiences and how they experienced them (Creswell & Poth, 2018).

Given the multifaceted and interconnectedness of the factors shaping the well-being of BFCAs, utilizing narratives was a beneficial technique to understand their experiences and this socio-ecological model offers insightful analysis into understanding this population.

Figure 1.
Socioecological Model



Participants

Post Institutional Review Board approval, participants were purposefully selected for their NCAA Division I college sports involvement. Eligibility criteria required English proficiency and to be over the age of 18. Furthermore, findings are limited to these participants and may not represent the entire population.

Convenient sampling was the most effective recruitment method, capitalizing on interested individuals' availability (Berg, 2001). Snowball sampling was further utilized to optimize participant recruitment (Palinkas et al., 2015).

Twelve individuals expressed interest however, only nine agreed to be interviewed. Participants were from a Predominantly White Division I Institution in the Southern United States. All nine participants received a cover letter, consent form, and demographic questionnaire via Qualtrics online survey. After the interviews were conducted, participants were offered compensation in the form of a $10 Amazon or Target gift card, based on their individual preferences.

Instruments and Procedure

Data was collected via an online demographic questionnaire, which took approximately 10 minutes to complete, as well as a 45-minute video and audio-recorded interview conducted on Microsoft Teams. The demographic questionnaire covered athletic details (team membership, classification) and personal information (hometown, ethnicity, socioeconomic status).

Semi-structured interviews were utilized to elicit rich and in-depth data, allowing participants to freely narrate their experiences without predetermined answers. This format also facilitated the comparison of responses to identify common themes and patterns (Minichiello et al., 1999; Morse & Field, 1995).

Table 1.
Participants Demographics

Pseudonyms	Age	Scholastic Classification	Sport	College Major	Racial / Ethnic Background
Danea	20	Sophomore	Soccer	Biomedical Engineering	African American (Black)
Danah	23	Graduate Student	Soccer	Finance	African American (Black)
Hanna	21	Sophomore	Soccer	Marketing	African American (Black)
Lydia	19	Sophomore	Soccer	Kinesiology	African American (Black)
Angela	22	Senior	Volleyball	Kinesiology	African American (Black)
Leslie	20	Sophomore	Basketball	Media Production	African American (Black)
Eliza	19	Freshman	Swimming & Diving	Technology Management	African American (Biracial Black & White)
Madina	26	Graduate Student	Basketball	Human Resources	African (Black)
Vicki	22	Senior	Volleyball	Sports Administration	African American (Black)

Note: Table 1 displays relevant participant background information, including sport, age, college major, and racial & ethnic backgrounds.

The interview incorporated five sections: (1) experiences, (2) anxiety sources (athletics, academics, marginalization), (3) impact and symptoms of anxiety, (4) coping strategies (personal and university support), and (5) suggested improvements.

Positionality

As the authors are people of diverse backgrounds who have experienced marginalization, we approached researching personal narratives of this population with attentiveness to our positionality, avoiding projecting our own experiences onto the interviewee's responses, as emphasized by Solórzano and Yosso (2002). Reflective bracketing was employed as part of the interpretive phenomenology research process to acknowledge and identify our personal experiences and responses (Creswell & Poth, 2018). This deliberate approach mitigated potential bias and minimized the entanglement of researchers' beliefs with participants' responses, as advocated by Patton (2015).

Interview transcriptions were revisited and validated with participants, following the recommendations of Ravitch & Mittenfelner-Carl (2016), ensuring clarity, accuracy, representation, and saturation of the data. To enhance study credibility, experts were consulted on theory application, methodology, data interpretation, and analysis, as recommended by Creswell and Poth (2018). This collaborative effort ensured a robust and informed research process.

Data Analysis

This study employed interpretative phenomenological analysis (IPA) with a focus on interpretation, hermeneutics, and ideography as core principles (Shinebourne, 2011; Smith et al., 2009). IPA aims to illuminate an individual's lived narrative and uncover shared meanings between the scholar and the participant (Alase, 2017; Smith et al., 2009). With an IPA approach, the researcher interprets the significance of lived experiences within a sociocultural context (Shinebourne, 2011; Smith et al., 2009). Ideographical aspects of IPA emphasize closely observing participants' specific behaviors and circumstances, guiding researchers on data inquiry (Keaton, 2022; Shinebourne, 2011; Smith et al., 2009). Hermeneutic aspects of IPA interpret and understand communication forms like written and spoken language, considering the context's influence on interpretation (Smith & Osborn, 2008).

IPA also facilitated the application of criterion purposeful sampling. By employing this sampling method, the researchers were able to select participants who were deemed most informative for the study (Moser & Korjsten, 2018). Finally, IPA allowed the researchers to identify areas that support the theoretical framework (Pietkiewicz & Smith, 2014).

Interview data were transcribed and analyzed concurrently, facilitating a thorough examination of all nine transcripts to extract key data, which were coded and developed into meaningful thematic categories. Data collection continued until saturation, indicating closure as no new information emerged. Data analysis followed established methods from previous research (Ajjawi & Higgs, 2007; Keaton, 2022; Smith et al., 2009; van Manen, 1997).

Table 2.
Five Stages of the Analytical Process

Stages of Data Analysis	
Stages	**Tasks Completed**
1. Immersion	Organized data into texts. Iterative reading of texts. Preliminary interpretation of the text to facilitate coding.
2. Understanding	Identified participants construct. Coding of data.
3. Abstraction	Identified researcher constructs. Grouped researchers construct into sub-themes.
4. Synthesis and theme development	Grouped sub-themes into themes.
4. Illumination and Illustration of phenomena	Linked stories and literature to themes and sub-themes.

There were five stages in the analysis process. See Table 2. for a summation of each stage.

Stage One: Immersion

In phenomenological research, immersion involves deeply engaging with the participant's text to understand its meaning and facilitate interpretation (van Manen, 1997). The researchers carefully listened to the interview recordings multiple times to transcribe the participants' statements accurately. After constructing each transcript, all interview transcripts were extensively read and re-read, while simultaneously listening to the audio recordings to minimize errors and promote reflection during analysis. Subsequently, this enhanced familiarity and prompted the development of initial interpretations for the coding process. Finally, reflective notes were documented, capturing initial thoughts, notable comments, challenges to preconceived ideas, bold expressions, and participants' emotions. This aided a smooth interpretive process, fostering deeper understanding and analysis.

Stage Two: Understanding

To comprehend participants' information introspective "why" questions were implemented to explore underlying motives and dynamics. For instance, researchers pondered why athletes dedicated themselves to a sport that results in their mental distress. These inquiries aimed to unravel deeper insights into the complexities of their experiences.

As researchers grappled with these thought-provoking questions, they engaged

in introspection, while exploring the significance of participants' lived experiences. Frameworks like Black Feminist Thought, intersectionality, idiocrasy, and aspects of interpretative phenomenology were used to uncover nuanced meanings and shed light on intricate dynamics in participants' narratives.

Introspection prompted coding each participant's narratives. This consisted of validating and reviewing every transcript and code with each respective participant for clarity and accuracy (Ravitch & Carl, 2016). This iterative process delved deeper into participants' experiences and provided the researchers with a comprehensive understanding that was essential for generating meaningful findings relevant to the research. This approach led to saturation as redundant information emerged, signifying a comprehensive understanding of participants' experiences.

The coding process explored shared and distinct experiences among participants. Individual codes were assigned to each participant, ensuring a focused understanding of their unique stories.

Stage Three: Abstraction

The interpretation of each interview transcript was utilized to create a composite dataset, where relevant and similar constructs were grouped together. This systematic grouping of data enabled the researchers to address the principal research question effectively.

During the initial round of coding, concept codes such as sports-related issues, intersectionality, and descriptive comments that influenced anxiety levels were applied. This process enabled the researchers to engage in abstraction by organizing similar codes and creating second-level codes, as outlined by Smith et al. (2009).

At the conclusion of this stage, all pertinent texts were categorized under their respective constructs within each sub-group, contributing to the answering of the principal research question.

Stage Four: Synthesis and Theme Development.

Themes resulted from cumulative actions during the initial three analytical steps. Similar constructs were grouped into subthemes, then further categorized into major themes addressing the research question. When identifying the essential nature of a theme, the objective was to identify the defining characteristics that encapsulated a particular phenomenon (van Manen, 1997). The iterative process refined themes and sub-themes, elucidating insights from data analysis. This approach revealed deeper meanings participants couldn't directly express due to the complex nature of the study.

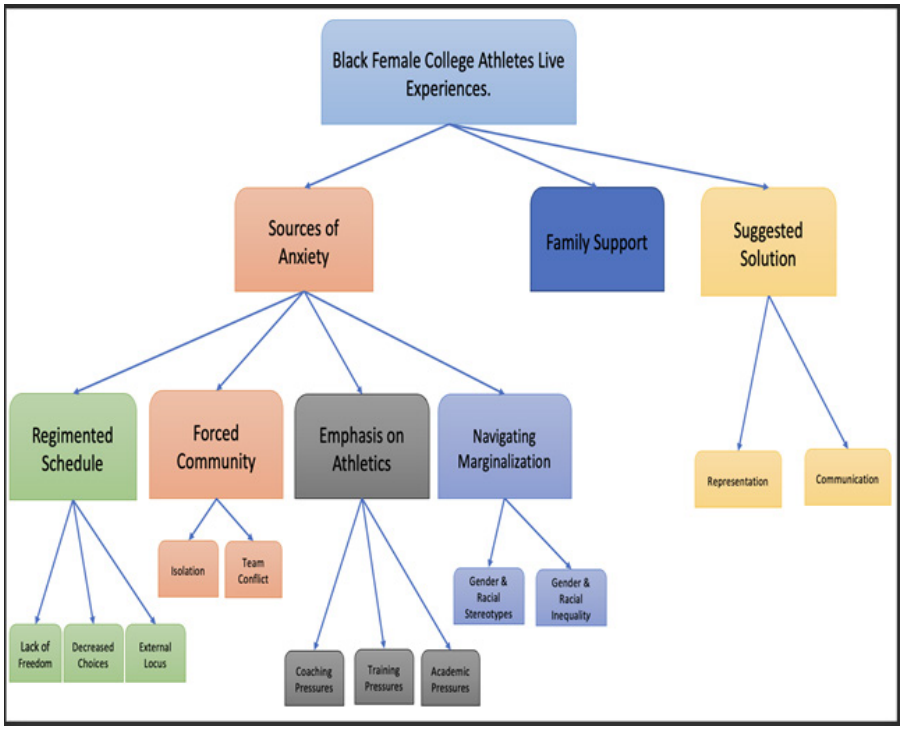
Stage Five: Illumination and Illustration of Phenomena

Existing literature was thoroughly examined to validate and reinforce interpretations from the participants' narratives, bolstering the development of themes and subthemes and providing scientific credibility to sources of anxiety experienced by each participant.

Findings

Based on the transcribed and coded data, the analysis revealed the emergence of four major themes that shed light on the sources of anxiety. These themes encompassed the participants' experiences with a regimented schedule, the sense of being part of a forced community, the weight placed on athletics, and the challenges of navigating marginalization. Additionally, two additional themes emerged, namely family support and suggested solutions, providing further insights into the participants' experiences. Refer to Figure 2. for a summation.

Figure 2.
Flowchart of major themes and subthemes.



Regimented Schedule

All nine participants shared a common factor: a strict and inflexible daily routine that allowed minimal deviation.

Danah describes a typical day as a college student-athlete.

> I get up at 6:30am. If we had to be at practice at 7:15, I would probably pull up around like, 7:05 then, we start practice. Practice lasts for a couple of hours. After practice, we have weight training which is for about an hour. When we are done, I probably go home, shower, and then come back to do rehab for an hour and a half. After that, I go home eat, and then go to class

> from 6:00 to 9:00 PM. I often do my homework during class. After class, I eat and go to sleep.

All nine participants echoed similar stories when questioned about a typical day as a college athlete demonstrating a regimented schedule. This theme was further delineated into three subthemes: lack of freedom, decreased ability to make choices, and an external locus of control. These factors contributed to a pervasive sense of anxiety experienced by this population.

Lack of Freedom

Hanna openly discussed her limitations in pursuing activities beyond athletics and academic obligations.

> I just sometimes don't like all the sacrifices I have to make to play the sport socially and physically. You must sacrifice so much time that you could be spending with others and doing things that could benefit you.

Hanna also shared how the time constraints and limited opportunities to pursue other internships and social endeavors resulted in feelings of unhappiness and fear of missing out.

> I might have to sacrifice not being able to participate in this program (intern program) because I must practice at a certain time. Also, little things that I won't be a part of, like hanging out and making memories with my friends, give me, really big FOMO (fear of missing out).

Gupta and Sharma (2021) define fear of missing out (FOMO) as apprehension about others having rewarding experiences, leading to symptoms like sleep deprivation, diminished life competency, emotional tension, negative physical effects, and heightened anxiety. Participants consistently reported the lack of freedom resulting from athletic and academic requirements restricted their participation in other activities and contributed to FOMO, highlighting the interconnectedness between lack of freedom and anxiety.

Decreased Choices

Participants expressed restricted personal choices due to potential consequences, limiting their ability to benefit themselves or contribute to societal changes.

Angela shared her experience of being removed from the team after participating in social justice marches.

> I was getting really involved in social justice stuff so after our first march, he brought me into his office and I was like, "OK, what's up?" [He replied] "Hey, some of the things you're doing off the court need to come to a halt. You need to focus more on the court." So, I was like "dang." Here's how I knew he was serious because two girls had gotten kicked off our teams for academic reasons.

Angela's decision to engage in an activity other than athletics ultimately led to her dismissal from the team.

Participants were further questioned about the impact on their mental well-being resulting from the limited ability to make choices freely.

Angela further expressed how these restricted choices had a significant impact on her personal relationships, stating "I think it got into my personal relationships, my insecurities, and my frustrations were thrown onto the other person. it definitely made me more anxious." Yearwood (2018) found college athletes constrained daily routines, including balancing practices, workouts, classes, meals, and sleep, limit their personal time and contribute to feelings of confinement and frustration. This restriction on independent decision-making significantly influences their anxiety levels.

External Locus of Control

Rotter (1966) defines locus of control as the extent to which individuals perceive outcomes as influenced by internal or external factors, with external locus of control indicating reliance on external forces beyond one's control. A correlation exists between locus of control and anxiety, particularly when rewards are perceived to be contingent upon external factors (Watson, 2016). As college athletes' structured schedules are beyond their control, anxiety may be prevalent.

This relationship is particularly salient for BFCAs as Foster (2003) suggested heightened scrutiny and control of this population by authority figures. BFCAs face constant monitoring and regulation through surveillance mechanisms rooted in historical power structures (Foster, 2003).

Foster (2003) highlighted the negative impact of control and surveillance on BFCA's well-being which led to increased stress, anxiety, and diminished agency. Danah's account revealed the presence of pressure to impress her coach, which subsequently contributed to heightened feelings of anxiety.

> I feel the pressure always feeling like, you're trying to impress somebody, whether you play little minutes, whether you're injured, whether you are a starter, you play 90 minutes. It feels like you are working out to please somebody else, and that's huge pressure.

Participants' responses indicated when events often extend beyond their control, it results in elevated levels of anxiety.

Forced Community

Four of the nine participants felt coerced into forming relationships within the team, creating a false sense of community. Forced community in this study referred to intentionally encouraging friendships among teammates by the coaching staff and athletic department to foster unity. While having camaraderie amongst teammates, alleviates loneliness for the individual athlete (Miller & Kerr, 2002), this overlooks the BFCA's experiences.

Hanah shared an unsuccessful coaching staff attempt to coerce teammate relationships for camaraderie.

> There are so many girls that I feel like I was forced to be friends with but if I saw them walking down the street and had one conversation with them, I would never talk to them again just because we don't have anything in common.

In an attempt to foster social community, athletics overlooks individual competitiveness, diverse social ideologies, and racial backgrounds.

Participants expressed competition for positions, personal ideologies, and racial identity created a disconnect with their Caucasian teammates. Danah discussed how the presence of varying ideologies among teammates contributed to the sense of forced community within the team dynamics stating, "We disagree on huge things like kneeling for the anthem and more recently the COVID vaccine mandate. You're forced into disregarding things that you wouldn't in the real world." While the idea of building community amongst teammates fosters camaraderie and enhances social development, inorganic bonds lead to isolation, conflict, and anxiety among participants. The theme of forced community was further divided into two subthemes: isolation and team conflict.

Isolation

BFCAs exhibit a distinctive quality characterized by their experience of an "outsider within" status, implying they are not regarded as authentic members within their social spheres. This condition often results in the suppression of their voices, fostering emotions of alienation and isolation, as noted by scholars such as Rollins (1985) and Bruening et al. (2005). Participants, reports of isolation within their sporting context contributed to loneliness and heightened anxiety levels. Hanna shared her experiences of feeling alienated by the coaching staff.

> I am literally one of the kindest people on this team, and they framed me to be a person that I wasn't, attacking my character. I felt so unvalued, mistreated, and unheard, and it was with everything that I did. They always put someone else's thoughts and beliefs about me over me instead of having conversations.

The experience of feeling alienated and isolated was shown to be a significant factor contributing to heightened anxiety levels.

Team Conflict

Negotiating interpersonal conflicts with coaches and teammates emerges as a notable factor leading to increased anxiety levels among college athletes. In her account, Lydia brought attention to instances of team conflicts that emerged during her freshman year, stemming from violations of COVID-19 protocols. These violations led to strained relationships among both upperclassmen and incoming athletes. The aftermath of these conflicts had a palpable impact on Lydia, leading to increased personal unrest and heightened levels of anxiety.

> Freshman year, there were a lot of conflicts due to COVID protocol violations, between the whole freshman class against everyone else, however, it was a few girls that were causing problems. Because we were new the other girls didn't know to separate us, and it became everyone versus the freshman. That wasn't fun and made it very tense sometimes.
>
> I didn't know if being on the team was for me, very early on due to the conflict environment.

Participants' feedback revealed a strong link between team conflicts, increased anxiety levels, and a tendency to withdraw and isolate oneself. While camaraderie and a sense of family can be fostered through prolonged interactions with like-minded individuals, it is crucial to recognize that mistrust, conflicts, and feelings of isolation can also arise, intensifying vulnerability to anxiety.

Emphasis on Athletics

Six of the nine participants emphasized the intense athletic focus and associated pressures from coaches, training commitments, and the struggle to balance academic responsibilities. The emphasis on athletics objectives set by management often overshadowed the personal goals of the athletes. Angela noted how college athletics is treated as a business, with management primarily concerned about athlete performance, saying, "College athletics is a business, they don't care about your mental well-being, but more so your physical. Because it's about, dollar signs, how I would perform is how my coach gets paid. And there's so much pressure." Each participant's response highlighted the detrimental effects of the business nature of college athletics on their mental health, resulting in increased anxiety. The subthemes of coaching pressures, training pressures, and academic pressures further contributed to this dynamic.

Coaching Pressures

Elevated performance expectations from coaches exert heightened pressure on athletes, detrimentally impacting their well-being. Vicki shared her challenges with performance pressures and elevated expectations from coaches.

> I understand that it's the coach's job, to win. If they don't win, they are gonna get fired. So, you are basically playing for them to get paid. However, you feel like they don't care about you and your well-being and all they want is perfection. If you make mistakes, they are gonna talk to you in a degrading way.

Participants noted how coaches' financial incentives linked to athletes' performance exert undue pressure on the coaches, which is then transferred to the athletes, contributing to heightened anxiety levels.

Training Pressures

College athletics incorporate practice, training, and recovery sessions to enhance athlete skills, readiness, and performance under the coaches' assessment. However, the business-oriented nature of college sports has resulted in intensified and prolonged training regimens.

Madina discussed the detrimental effects of the demanding and lengthy basketball training schedule on her well-being.

> We wake up early in the morning, we have weight room, meetings, and film, where they talk about you. You then have to update them on your progression. After that, you have to practice for 3 hours. This happens four

> days a week except for game weeks. You feel like you spend all of your days doing the same things, and you don't have time to relax. It's stressful because you're trying to meet your expectations even when you are tired and your body feels down like you didn't have enough sleep. So, it's always stressful.

Prolonged training negatively affected participants' well-being, elevating stress and anxiety levels significantly.

Academic Pressures

Navigating the balance between academics and athletics is vital for college athletes. However, intensified academic pressures and constrained planning time contribute to overwhelming stress levels (Brown, 2016; Stokowski et al., 2019). Eliza discussed the challenge of balancing academic requirements and her swimming career, emphasizing the difficulties she faced, saying, "During the season I'm pretty stressed with making sure I can finish my schoolwork, especially if we have swimming meets or travel." Eliza further provided insights into the psychological effects of balancing academic and athletic demands.

> I'm stressed with school and swimming. There was a point during swim season where I felt there was nothing that would help. I don't have an outlet for my stress because I have to deal with school that I'm not the best at and then I have to also deal with swimming.

Participants indicated they experienced significant distress because of the academic demands, which subsequently affected their overall well-being.

Navigating Marginalization

BFCAs lived experiences are marred by racial oppression, gender inequities, and marginalized experiences from perceived negative stereotypes (Carter-Francique, 2013). Marginalization was explored through two subthemes: Gender and Racial Stereotypes and Gender and Racial Inequality.

Gender and Racial Stereotypes

Stereotypes are commonly held beliefs about group characteristics, disregarding individual variations (Kauer & Krane, 2006). Stereotypes are used to distinguish and generalize across groups (Kauer & Krane, 2006). Stereotypes based on race, gender, and athletic status marginalize BFCAs, undermining their achievements and social integration, while contributing to higher rates of anxiety and depressive symptoms (Carter-Francique, 2013; Kauer & Krane, 2006). BFCAs face gender stereotypes portraying them as emotionally unstable and fragile, while racial stereotypes label them as aggressive, lacking emotions, and lower in intelligence (Ofoegbu, 2022; Simien et al., 2019).

On three distinct occasions, Angela shared notable experiences on gender and racial stereotypes. She recounted an incident where her coach anticipated her to exhibit vulnerability and plead to remain on the volleyball team based on her gender,

saying, "I'll never forget in the meeting when he kicked me off, he said, 'You never cried even though I was mean to you.' I was like, 'what do you want me to cry?' He said other girls cry when things go wrong. Angela reported that she engaged in a conversation with her volleyball coach about the coach's viewpoints regarding Black athletes and came to a dishearten realization on how Black athletes are seen.

> My coaches made me realize, how people see Black athletes. When he describes Black players, he would say, they're very athletic and jump high, whereas he describes White players as technically sound, with strong setup skills, and a very high IQ level.

Finally, she emphasized the profound personal repercussions of perceived stereotypes on Black female volleyball players, underscoring the considerable disrespect she encountered, stating, "I honestly feel disrespected. All the hard work I put into improving my skill set to better my IQ level doesn't matter." Participants' responses indicated how generalizations based on their Black and female identities disregarded their individuality, leading to increased levels of insecurity and anxiety.

Gender & Racial Inequality.

Participants indicated they encountered instances of racial and gender inequality throughout their playing careers. The combination of these disparities alongside athletic pressures heightened their vulnerability to anxiety. Angela noted gender disparities in Name, Image, and Likeness (NIL) advertising deals, with male athletes often receiving greater opportunities despite lesser accomplishments than their female counterparts. She stated, "He doesn't even necessarily play, but he is getting a deal with Uber, but we haven't even gotten a deal yet and we're all-conference." Leslie highlighted the unequal viewership between the women's basketball team and other sports teams, such as men's basketball, volleyball, and soccer, which received more attention from the university and administration.

> We don't get the support we should, like the men's basketball team. I feel more people go to the volleyball girls because they're mostly Caucasian. You come to our games you barely see anyone. You think about that as a Black female like, do they really care for us, or do we matter as well?

Participants report consistently facing gender and racial disparities, resulting in heightened anxiety levels.

Family Support

Family support emerged as a pivotal coping mechanism for all nine participants in managing pressures, stress, and anxiety. Eliza highlighted the significance her family plays in alleviating feelings of homesickness and isolation.

> My mom, my dad, and my brother are my biggest supporters. My mom is my loudest supporter and she's always there for my ups and downs. Although she might not be in the stands, due to live streaming it is nice to know that I still have support across the country.

Lydia echoed similar sentiments regarding the support she receives from her family, saying, "We basically talk for hours if I need it. When I'm feeling a little stressed

out, they let me know that I am still a priority in their lives." Participants' responses emphasized the crucial role of family support in enhancing their mental well-being.

Suggested Solutions

Four participants provided recommendations to improve the well-being and climate of college athletics for Black female athletes, focusing on representation and communication.

Representation

Participants emphasized the need for Black women representation in coaching and administration to better understand and address their unique challenges. Hanna emphasized the importance of having relatable individuals who share her racial and gender identity as a BFCA. She said, "I just wish there was somebody in the position who looked like me and could fully understand the stuff that I go through instead of White people trying to tell me how to live my Black life." Participants' responses indicate increased representation in coaching and athletic administration is crucial for improving the environment and conditions for BFCAs.

Communication

Enhanced communication between administrators, coaches, and athletes is recommended to address training demands, academic expectations, and psychological challenges, thereby promoting the well-being of BFCAs. Eliza highlighted the importance of coaches' improved communication for enhancing athletes' well-being and fostering understanding of their unique challenges saying, "I think there is a lack of communication, if there was more communication between coaches and athletes, I think it probably help with our mental health." Respondents emphasized the significance of improved communication among coaching staff, athletic administration, and athletes regarding their well-being, with appropriate responses to meet their needs, ultimately enhancing the experiences of BFCAs.

Discussion

Amid the NCAA's emphasis on enhancing mental health for college athletes and the growing recognition of how race and gender impact their well-being, the imperative to prioritize mental well-being within BFCAs should align with a comprehensive understanding of their unique mental health experiences. Participants' accounts unveiled the presence of regimented schedules characterized by restricted autonomy, limited options, and external demands. Additionally, the heightened emphasis on athletics, encompassing coaching, training, and academic pressures, was evident. While these challenges are pertinent to college athletes broadly, a nuanced understanding of the historical backdrop in which Black women have traditionally contended with time constraints imposed by external factors can assist administrators in grasping their elevated anxiety response to structured schedules. This heightened awareness acknowledges the unique historical and societal pressures that have

shaped the experiences of Black women, offering a more insightful perspective on the complexities of managing time and expectations within the framework of collegiate athletics. This understanding underscores their need for increased autonomy over their time management. Hence, the applicability of Black Feminist Thought (BFT) as an analytical tool for college athletic administrators in comprehending anxiety within this cohort becomes more apparent. BFT posited the perceptions of Black women concerning their social environment are intricately molded by historical and material circumstances (Collins, 1989). In this study, BFT notably facilitated a profound grasp of the historical underpinnings linking these themes to an external locus of control and participant mistrust, consequently exacerbating anxiety levels. O'Connor's (2002) work suggests that historically, racism and gender-based oppression have constrained Black women's autonomy and choices, impacted their societal experiences, and ultimately led to mental health issues and institutional mistrust. Consequently, through the lens of BFT and the exploration of these thematic insights, it becomes clear why BFCAs encounter heightened anxiety in situations that curtail their agency. The perspectives shared by participants underscore a gap in the integration of mental health initiatives tailored to this group and in their interactions with athletic staff. Enhancing their autonomy is of paramount importance for mitigating the anxiety stemming from the existing collegiate athletic landscape for this population.

The theme of forced community, marked by conflicts among teammates and feelings of isolation, substantiates the relevance of the outsider within status framework. Participants described pressure to forge connections with teammates, even with differing viewpoints, led to conflicts, isolation, and a sense of exclusion ultimately impacting their anxiety levels. This finding resonates with prior research, such as Rollins (1985), who proposes Black women have consistently confronted an outsider status within their social contexts, marginalized and positioned at the margins of power structures. This marginalization has fostered feelings of isolation, heightened anxiety, and an inclination toward depression among these individuals (Rollins, 1985). Similar trends surfaced in our investigation, indicating the absence of purposeful community-building efforts has adverse effects on the well-being of Black female college athletes. Armed with this awareness, college sports administrators should prioritize establishing secure environments within the existing framework that facilitate natural community formation among this group.

The theme of navigating marginalization underscores the significance and necessity of incorporating critical inquiry within the intersectional framework when investigating the lived experiences of Black women. By applying critical inquiry within the intersectionality framework, this study unveiled that BFCAs grappled with intersectional marginalization, resulting in elevated anxiety levels. Participants consistently revealed a noticeable contrast in the favorable treatment and assistance provided by both the athletic department and the wider university environment to predominantly Caucasian and male-dominated sports, while inadvertently neglecting the needs of sports where BFCA's are dominant. Furthermore, this theme resonates with prior research. Notably, in a study by Sadberry & Mobley (2013) exploring

sociocultural and mental health adaptation among BFCAs, it was revealed how these very gender and racial stressors (i.e., intersectionality) heightened the likelihood of anxiety symptoms. Administrators aiming to enhance mental health support for BFCAs must recognize the inadvertent potential for further marginalization. Their intent to connect with these women individually should acknowledge the intersecting influences of race and gender on their lived experiences.

The identification of the family support theme as a coping mechanism for BFCAs further underscores the value of critical inquiries within the intersectional framework. All nine participants conveyed how family support offered comfort and guidance amidst athletic and intersectional challenges. This theme resonates with prior research. Carter and Hart (2010), for instance, emphasize the significance of family support for BFCAs, serving as a tether to their cultural identity, offering guidance, and affirming their accomplishments and heritage. This support empowers athletes confronting marginalization by reinforcing their unique strengths and contributions (Carter & Hart, 2010). Moreover, family support plays a pivotal role for Black female college athletes, furnishing emotional, financial, academic, and cultural bolstering that enhances their well-being, resilience, and overall success (Carter & Hart, 2010).

Practical Implications

Utilizing the intersectionality framework also facilitated a critical praxis approach (Collins and Bilge, 2020). Furthermore, the application of intersectionality yielded actionable insights to address sources of anxiety among BFCAs, drawing from participant perspectives distilled from our findings.

Participants emphasized the crucial importance of diversifying leadership roles, such as coaching and athletic administration, to cultivate an environment of open dialogue around anxiety-related concerns. They believed enhanced diversity would enhance comprehension and support through shared experiences, thereby advancing the overall success of the athletic program. Supporting this notion, Hirko (2007) contends racial and cultural representation, coupled with effective communication within college athletics, fosters greater interracial interaction and understanding, ultimately contributing to improved well-being for both racial minority athletes and the broader college athlete community.

Sports institutions bear the responsibility of establishing an inclusive and just atmosphere for BFCAs, thereby mitigating anxiety and enhancing their holistic welfare. It is imperative for institutions to allocate financial resources toward bolstering representation. The presence of Black women in coaching, administrative, and leadership positions is paramount, as it engenders a sense of ease and relatability among BFCAs (Hirko, 2007). This proactive stance also underscores the organization's dedication to fostering equity in the face of racial, gender, and cultural diversities.

Institutions can further enhance the prevention and coping mechanisms for anxiety among BFCAs by actively integrating family support. College athletic departments and coaching staff should engage and educate athletes' families comprehensively in their overall development. This entails promoting consistent communi-

cation among athletes, families, academic advisors, and coaches to ensure a unified approach to supporting the athletes' aspirations. This collaborative effort empowers families to contribute insights into time and stress management, strategies for achieving work-life balance, and providing valuable external resources (Carter & Hart, 2010). Effective communication not only nurtures a supportive ambiance but also encourages athletes to openly discuss experiences, challenges, and goals with their families. Moreover, institutions should encourage higher family participation in athletes' competitions to amplify encouragement, cultivate a sense of belonging, and augment confidence and motivation. Encouraging families to establish connections with one another fosters a network of support, enabling the exchange of experiences, challenges, and guidance. This collective framework creates a sense of community and mutual understanding, further enriching the environment for BFCAs.

Conclusion

This study sought to comprehend and pinpoint anxiety-contributing factors in Black female college athletes, informing interventions aligned with their cultural context and presenting a distinct overview of their specific anxiety sources. While this population shares common anxiety triggers with their peers, like coaching demands and managing academic-athletic commitments, the distinctive influences of race and gender underscore the necessity for customized interventions. Integrating adapted well-being strategies for college athletes alongside tailored interventions for marginalized groups empowers researchers and institutions to target efficacious approaches. This research addresses a gap in the existing literature by delving into the lived experiences and anxiety determinants of BFCAs, an often-overlooked domain. Given the increasing presence of Black women in elite college sports, continued investigation is vital for enhancing their anxiety management strategies.

Limitations and Future Research

Although the outcomes of this study contributed to the progression of comprehending anxiety sources within marginalized athlete populations, the emphasis was placed on capturing the lived experiences of BFCAs. While findings may have transferable implications, the ability to generalize is confined as participants came from a single Division I program.

Future research should aim to recruit and study participants from diverse programs across the country to enhance the generalizability of findings. Additionally, further investigation is warranted to explore anxiety sources among racial and gender-marginalized college athletes (e.g., LatinX, Asian, Pacific Islander), and other groups across various athletic divisions. This is critical as the findings from this study align with similar patterns observed in these populations (Kroshus et al., 2023). This is because these racially diverse populations are also subjected to marginalization and lack the necessary support to address their psychological needs (Manwell et al., 2021; Ortega, 2021; Ramos et al., 2018). For instance, Chu et al. (2023) high-

lighted the experiences faced by Latinx college athletes within sporting environments that severely impacted their mental well-being. This was brought to light by instances of these athletes encountering racist and stereotypic remarks from both teammates and coaches due to misguided beliefs about their immigration status. This evidence emphasizes these challenges extend beyond the experiences of BFCAs and advocates the broader relevance of performing this research amongst varying marginalized populations.

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Promoting Coaches on Instagram: A Content Analysis of Posts Featuring NCAA Division I Coaches of Women's Sports

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Despite Title IX regulations, gender discriminatory practices in college sports continue to affect athletes, coaches, and administrative personnel at various levels. One manifestation of gender discrimination could affect the differential promotion of coaches via social media channels. This study investigates how NCAA Division I coaches across nine intercollegiate women's sports are promoted on Instagram. We collected and analyzed a total of 649 Instagram posts from 98 official accounts of athletic departments across all 10 NCAA Division I-FBS conferences. Our findings indicate equitable promotion of female and male coaches for the same sports on social media. This suggests that social media could be disrupting the gender stereotypes that are deeply ingrained within the coaching profession and hinder women's progress in sports. Future research steps and Title IX implications are discussed.

Over the last 51 years, Title IX has had a tremendous influence on college sports by bolstering investments in women's sports programs and expanding scholarship opportunities for female athletes (Acosta & Carpenter, 2014; Coakley, 2014; Hardin et al., 2007). But even though Title IX has been instrumental in increasing women's participation in intercollegiate sports (Acosta & Carpenter, 2014), gender discriminatory practices continue to persist, as evidenced by the *USA Today* 2022 Title IX series (Armour et al., 2022) and Sedona Prince's viral video exposing the unequal treatment of women's and men's basketball teams competing in the NCAA tournaments in 2021 (McDonald, 2021).

Past scholarship investigating gender discrimination in sports has overwhelmingly focused on college athletes, ranging from topics such as scholarship allocations to preferential treatment of men's sports, and even to differential media coverage received by women's sports teams compared to men's sports teams (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020). This body of research has

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invariably revealed that female athletes do not necessarily enjoy the same benefits as their male counterparts (Huffman et al., 2004) and that women's sports tend to receive less coverage than men's sports (Billings & Angelini, 2019; Clavio & Eagleman, 2011; Musto et al., 2017), thus perpetuating the idea that men's sports are more exciting and interesting than women's sports (Cooky et al., 2013). Other studies have highlighted the use of sexist and biased language when covering female athletes (Cooper & Cooper, 2009; Godoy-Pressland & Griggs, 2014; Musto et al., 2017), even though encouraging signs toward more equitable media coverage have started to emerge in more recent investigations (Degener, 2018; Johnson et al., 2021; Petty & Pope, 2019; Scheadler & Wagstaff, 2018; Wolter, 2021).

To a lesser extent, scholars have examined Title IX's inadequacy in ensuring equitable representation of women in leadership positions within athletic departments, particularly at the coaching level (Cunningham, 2019). Men continue to maintain a stranglehold on leadership roles in both men's and women's athletics, leaving women facing a multilayered set of obstacles to enter and succeed in these roles (Boucher & LaVoi, 2023; Eagly & Sczesny, 2009; Kamphoff, 2010; LaVoi & Dutove, 2012). We maintain that this culture of exclusion and marginalization of women within intercollegiate athletics may extend to the ways these women are promoted by athletic departments, especially when this promotion pertains to social media platforms with the potential to reach a wide audience in a short time (Billings, 2014; Gurrieri, 2021; LaVoi & Calhoun, 2016).

The present study seeks to analyze how college athletic departments communicate their gender dynamics through their social media. As athletic departments strive to enhance diversity, equity, and inclusivity (Bernhard, 2016), it becomes imperative to investigate the possible application of such efforts in the promotion of female coaches in comparison to their male colleagues coaching the same sports. To this end, we gathered and analyzed a dataset comprising 649 Instagram posts featuring female and male coaches of women's sports teams from 98 institutions across all 10 National Collegiate Athletic Association (NCAA) Division I-Football Bowl Subdivision (FBS) conferences (i.e., the *Power Five* conferences and the *Group of Five* conferences). We specifically focused on assessing the representation of coaches of Division I-FBS women's sports teams and aimed to discern whether athletic departments perpetuate the gender stereotypes that have historically hindered the progress of women in intercollegiate sports, particularly within coaching roles (Adams & Tuggle, 2004). Contrary to our expectations, our analyses reveal that female coaches were promoted similarly to male coaches for the same women's sports. This suggests that social media platforms may have the potential to disrupt the pervasive gender-based stereotypes that have traditionally plagued intercollegiate sports and hindered women's progress in coaching and leadership roles. Future research steps as well as implications for Title IX are discussed in the concluding section.

Female Coaches in Intercollegiate Sports

Although the implementation of Title IX has led to enormous progress for women, intercollegiate sports remain a masculine domain where women continue to face

discrimination, pervasive double standards, and substantial barriers to job access. Record numbers of women currently participate in women's sports, but men continue to dominate leadership roles in men's athletics as well as in women's athletics, leaving women facing a multilayered set of obstacles to enter and succeed in these roles (Boucher & LaVoi, 2023; Eagly & Sczesny, 2009; Kamphoff, 2010; LaVoi & Dutove, 2012). To illustrate, since 1972, the percentage of female head coaches has plummeted from over 90 percent to a near all-time low, hovering just below 40 percent (Acosta & Carpenter, 2014; Longman, 2017). Furthermore, a larger number of men have transitioned to coaching women's sports teams (Bradford & Keshoch, 2009), while the percentage of women coaching men's sports has remained relatively minimal, around 2–3 percent (Acosta & Carpenter, 2014; Longman, 2017).

While there is no empirical data showing that men are inherently better coaches than women (Walker & Bopp, 2011), men are often preferred for coaching positions over their female counterparts. Men frequently coach sports which they have not played competitively, such as softball, whereas women are rarely afforded similar opportunities. Interestingly, among women coaching men's sports, only 5 percent exclusively coach men's teams, with most coaching a combination of both women's and men's teams in sports like cross-country, golf, and swimming (Yiamouyiannis & Osborne, 2012). Among the few women coaching men's sports, many are relegated to individual sports (e.g., tennis and swimming) which are often seen as less prestigious, less visible, and less masculine compared to football, basketball, and baseball (Kane & Stangl, 1991; Walker & Bopp, 2011). In-depth interviews conducted with male coaches of NCAA Division I men's basketball by Walker and Sartore-Baldwin (2013) revealed the lack of female representation in these coaching roles. The authors found that men's sports are resistant to changing the institutionalized norms favoring the hiring of men over women for coaching positions. The men interviewed in this study acknowledged knowing many qualified women capable of coaching in men's intercollegiate basketball but admitted these women would probably never could pursue such career pathways if desired (Walker & Sartore-Baldwin, 2013).

This contextual evidence highlights the persisting deficiency in gender equity within intercollegiate athletics (Longman, 2017; Yiamouyiannis & Osborne, 2012). Past literature suggests that gender inequity in sports may stem from the stereotypical perception that men possess the qualities needed to thrive in masculine domains like sports (e.g., agency, power, and strength) whereas women tend to lack these same desired qualities (Bernstein & Kian, 2013; Eagly & Karau, 2002; Eagly & Sczesny, 2009; Organista & Mazur, 2020). In other words, the communal qualities often attributed to women (e.g., kindness, softness, and empathy) inherently clash with the agentic qualities demanded to succeed and excel in sports, particularly within leadership positions (Cooky et al., 2021; Cooky et al., 2013). This ultimately presents significant barriers to women's career prospects, preventing them from flourishing in the male-dominated sporting world (Gurrieri, 2021; Karlik & Wolden, 2023).

A large body of literature has documented the discriminatory practices that female coaches face in sports, ranging from overt sexism and sexual harassment to salary discrimination (Carson et al., 2018; Kokkonen, 2019; Musto et al., 2017; Sabo et al., 2016; Walker & Sartore-Baldwin, 2013). Discrimination often manifests in the

ways women are evaluated for coaching roles as well as in how they are treated compared to their male colleagues (Walker & Bopp, 2011). Qualitative interviews with female coaches have revealed higher levels of stress, exhaustion, and feelings of burnout that result from gendered pressures to succeed, with consequential impacts on their professional careers and personal lives (Carson et al., 2018; Lundkvist et al., 2012). Owing to these pressures and the differential treatments by athletic directors and other administrative staff (LaVoi & Silva-Breen, 2019), women may avoid considering the coaching profession as a viable career option or may end up quitting at higher rates than their male colleagues (Kamphoff, 2010; Longman, 2017).

We suspect that the gender biases and discrimination female coaches experience may extend to the ways these women are portrayed and promoted on social media platforms compared to their male counterparts coaching the same teams (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020). Since online representations of female coaches hold the potential to shape public perceptions of women in typically masculine domains (Scheadler & Wagstaff, 2018), we contend that it is imperative to explore this aspect through a systematic investigation.

Framing Women in Sports on Instagram

We employ framing theory as the theoretical framework to investigate the promotion of female coaches on social media. First introduced by Erving Goffman in his seminal 1974 *Frame analysis* essay, framing theory has been widely adopted to explain how information is interpreted, shared, and understood among audiences (Entman, 1993). Rooted in sociological and psychological foundations of interpretation, framing theory delineates the process of selecting "some aspects of a perceived reality and make them more salient in a communicating text, in such a way to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described" (Entman, 1993, pp. 52).

When applied to the context of sports, scholars have employed framing theory to investigate the meaning conveyed through sports-related media content and its effects on audiences (e.g., Frederick et al., 2017; Frederick & Pegoraro, 2018; Lewis & Weaver, 2015). Specifically, past studies have documented how frames used to depict women tend to reinforce the hegemonic masculinity that pervades sports (Walker & Sartore-Baldwin, 2013). Defined as the acceptance of the notion that men have the attributes deemed desirable for positions of authority, such as individualism, physical superiority, assertiveness, and power (Bernstein & Kian, 2013; Eagly & Karau, 2002; Eagly & Sczesny, 2009; Organista & Mazur, 2020), hegemonic masculinity operates to preserve the idea that certain institutions, such as sports, are best suited for men. This can have potential discriminatory repercussions for women by reinforcing the "old boys' club" perspective (Adams & Tuggle, 2004; Scheadler & Wagstaff, 2018; Walker & Bopp, 2011).

Men dominate sports not only as athletes and coaches, but also as reporters (Organista et al., 2021). Female sports reporters are often criticized and trivialized compared to their male colleagues and are often perceived as more credible and

competent when covering male athletes as opposed to female athletes (Organista & Mazur, 2020; Organista et al., 2021). This differential treatment, in turn, can lead to the devaluation of female athletes' performances and diminish the legitimacy of women's sports (Organista & Mazur, 2020). A study by Greer and Jones (2012) found that female sports commentators were perceived as most competent when covering a sport typically associated with women (e.g., volleyball) compared to a sport perceived as traditionally male-dominated (e.g., football). In a similar way, Luisi and colleagues (2021) examined the perceived credibility of a female versus a male play-by-play commentator in an experimental setting. Their findings showed that the male commentator was consistently perceived as more credible and engaging than the female commentator, and this was true regardless of the gender of individuals in the audience. This is in line with a study by Cummins and colleagues (2019), which revealed that TV female sports commentators are perceived as less credible than their male colleagues by both male and female audiences.

We build on this body of work by looking at how female coaches in intercollegiate sports are depicted on social media. Since the process of framing is increasingly occurring in online spaces (Oh & Ki, 2019), we specifically look at how female coaches are framed on Instagram. In intercollegiate sports, Instagram has emerged as a powerful tool for sharing content in the form of photos, videos, and reels with accompanying captions—often in the form of short text. Through Instagram, online users can connect with athletic departments by liking and commenting on posts of interest featuring their favorite sports teams, athletes, and coaches. The affordances of Instagram, including its immediacy and extensive reach, allow fans, sports enthusiasts, and other users to engage and feel connected to their teams (Meng et al., 2015; Watkins & Lee, 2016).

To date, existing literature has largely focused on the use of social media platforms as brand management tools and as marketing platforms for athletic departments and professional team sports organizations alike (e.g., Anagnostopoulos et al., 2018; Bunch & Cianfrone, 2022; Johnson & Romney, 2018; Johnson et al., 2021; Romney & Johnson, 2020; Smith & Sanderson, 2015). The bulk of this work has examined how social media can help build and sustain relationships with sports fans and enthusiasts. For instance, Anagnostopoulos and colleagues (2018) examined how two renowned British football teams use Instagram to manage their brand image and interact with their audiences, indicating that social media empower consumers to actively participate in generating brand-related content, highlighting the importance of branding for professional sport teams' marketing and commercial activities. Other studies have focused on how social media provide opportunities for athletes to promote their personal brands and attract followers (Doyle et al., 2022; Geurin-Eagleman & Burch, 2016). Previous work has also investigated the motivations driving sports fans' engagement with social media (Abeza et al., 2021; Lewis et al., 2020; Li et al., 2019; Spinda & Puckette, 2018), with a specific focus on the advocacy efforts in relation to social injustices (Bunch & Cianfrone, 2022; Harrison et al., 2023; Intosh et al., 2020).

To a lesser extent, scholars have examined how coaches are framed on Insta-

gram and whether the pervasive hegemonic masculinity of sports is mirrored on this particular platform. Through our study, we seek to clarify whether and how this popular social media platform might challenge the entrenched stereotypical assumptions about women occupying coaching positions, especially in women's sports—which typically receive less attention and less promotion compared to men's sports. It is here that we situate our work. Because social media is a public representation of institutional sports programs and conveys messages to fans about what is valued and relevant, we argue that it is imperative to investigate the practices employed by sports communication administrators in promoting coaches.

Given that many athletic departments have increasingly invested resources into establishing and maintaining an online presence (Hipke & Hachtmann, 2014; Watkins & Lee, 2016), this rapid shift makes it critical for scholars to investigate the strategic communication choices athletic departments make to promote their sports programs to the public (Black et al., 2016; Cooper & Cooper, 2009; Hutchins & Rowe, 2009; LaVoi & Calhoun, 2014). Through social media platforms, athletic departments can showcase their teams' accomplishments, attract potential recruits, enhance spectatorship, and foster meaningful connections with a digitally engaged fan base, transcending geographical and temporal barriers (Black et al., 2016; Clavio & Walsh, 2014; Hipke & Hachtmann, 2014; Whiteside et al., 2012). More crucially, as college athletic departments continue to work toward more diverse, equitable, and inclusive cultures (Bernhard, 2016), their communication practices could affect perceptions of women in intercollegiate sports, an institution where men continue to dominate (Hutchings & Rowe, 2009).

Since Title IX regulations encompass various aspects of intercollegiate sports, failure to provide equitable publicity and promotion of female and male coaches for the same women's sports could result in important legal consequences for institutions that operate under the NCAA (Cunningham, 2019). College athletic departments have large followings, and promotion of coaches on Instagram represents an opportunity to reshape public perceptions of various internal and external stakeholders, including fans, alumni, sponsors, general body students, and prospective recruits.

Hypotheses

Research documenting media portrayals of coaches remains limited, even though coaches are arguably the most visible figures in sports (LaVoi & Calhoun, 2016). However, because sports is a male-dominated and highly contested terrain where women are underrepresented and marginalized, we hypothesize that athletic departments affiliated with the NCAA may perpetuate the hegemonic masculinity within sports and the gendered stereotypical lenses through which women are seen in predominantly masculine domains. In this sense, female coaches may not be given equal opportunities compared to their male counterparts for the same women's sports teams. We maintain that this exclusion, in turn, may perpetuate the idea that sports serve as an exclusive domain reserved for men. Accordingly, we predict the following:

H1: *Female coaches are underrepresented in athletic departments' Instagram posts compared to male coaches for the same women's sports teams.*

In addition to the overall underrepresentation of women in sports coverage (Musto et al., 2017), it is also important to identify the frames used to depict female coaches. Because female coaches are in leadership positions, we turn to past work in political science investigating visual portrayals of women in politics (e.g., Bauer & Carpinella, 2018, Dittmar, 2015; Grabe & Bucy, 2009). This body of work indicates that visuals presented through campaign websites, fliers, or television ads frame political candidates according to either feminine or masculine stereotypes, which, in turn, have the potential to influence voters' evaluations of these candidates for elected office (Carpinella & Johnson, 2016; Dittmar, 2015; Grabe & Bucy, 2009). Visual information that aligns with feminine stereotypes may create an incongruent expectation of where the public expects women to be and where women are found to be.

We contend that the same logic may also apply to female coaches, who have long been portrayed as lacking the experience required for coaching (Hasbrook et al., 1990). Framing female coaches through the lens of feminine stereotypes may perpetuate the idea that women do not belong to contested territories traditionally reserved to men, such as stadiums, sports fields, and gymnasiums. One way to convey this idea is by portraying women in a setting unrelated to the playfield, that is, "off action." Stemming from social role theory asserting that women are mainly confined to the household and men to the public sphere (Eagly & Karau, 2002; Koenig & Eagly, 2014), off action portrayals of female coaches may maintain the stereotypical idea that women lack the qualities needed to succeed in masculine domains typically reserved to men. Drawing on this background, we posit that female coaches may be presented off action at higher rates than their male colleagues. Male coaches, on the other hand, may likely be portrayed "in action" to reinforce their perceived suitability for leadership roles (Eagly & Karau, 2002; Koenig & Eagly, 2014). Thus, we posit:

H2: *Female coaches are represented off action at higher rates than male coaches.*

Content Analysis

To test our hypotheses, we conducted a content analysis on a two-year sample of all available Instagram posts published by the athletic departments of all NCAA Division I Football Bowl Subdivision (FBS) colleges and universities, including the *Power Five* conferences (i.e., the Big Ten Conference, the Atlantic Coast Conference, the Big 12 Conference, the Pac-12 Conference, and the Southeastern Conference) and the *Group of Five* conferences (i.e., the Mid-American Conference, the American Athletic Conference, the Conference USA, the Mountain West Conference, and the Sun Belt Conference).

We included all institutions with an official Instagram account for their athletic departments. This decision was deliberately made due to the reliance of athletic departments on institutional funding to support and sustain their operations (Knight Commission on Intercollegiate Athletics, 2020). Title IX underscores the importance for these departments to implement fair and equitable practices in how they promote coaches online.

We focused on Division I-FBS sports due to the heightened visibility of their women's athletic programs, their large crowds and revenues, and their substantial resources to athletics, including the marketing and communication departments that are in charge of promoting teams on social media. Moreover, Division I institutions raise and spend their money primarily to improve the prestige and excellence of their sports programs (Blue, n.d.; McEvoy et al., 2013; Suggs, 2009). Athletics departments perceive greater prestige from men's sports (particularly football and men's basketball), and this results in disproportionate spending on these sports compared to women's' sports. Revenue allocation theory helps us to understand the spending patterns of college athletics programs, in which the money generated and raised from football and men's basketball is primarily spent back into those sports to raise prestige (Suggs, 2009). After funding football and men's basketball, remaining generated revenues are spent in other sports to provide a broad-based program of educational opportunity, including women's sports. Conversations about this revenue are important when considering the resources devoted to marketing and communication departments deciding to photograph and promote coaches during athletics contests and after contests.

Division I institutions, however, differ significantly in revenue generated from athletics (Cheslock & Knight, 2015), and this typically divides them into "haves" and "haves not." The majority of "haves" are members of the *Power Five* conferences (powered by football through ticket sales, conference media packages, and the College Football Championship), receiving automatic bids to the College Football Playoff (i.e., Southeastern, Big Ten, Atlantic Coast, Pac-12, and Big-12), generating more than $400 million in revenue per year. Conference media contracts for the *Power Five* institutions raised more than $3.3 billion in 2022, with a significant majority of all conference media revenue attributable to football (Straka, 2022). On the other hand, *Group of Five* members (primarily powered by institutional support and student fees) have not had access to significant conference media agreements, nor access to significant College Football Playoff revenues. The revenue generated from football enables *Power Five* institutions to allocate substantial resources to support other sports, notably women's athletics. According to the Knight-Newhouse College Athletics Database (2023), the median revenues of 56 public *Power Five* programs was $143 million, with $5 million (3.5%) contributed through institutional support and student fees. By comparison, the median revenues of 54 public *Group of Five* programs was $39 million, with $24 million (62%) contributed through institutional support and student fees.

A study by Welch and Sigelman (2007) underscores a significant disparity in the prevalence of women coaches between *Power Five* conferences (83%) and *Group of Five* conferences (58%)—suggesting a correlation between the resources allocated

to women's sports and the likelihood of women coaching these sports. The same study also revealed that women coaches in the *Power Five* conferences were most prevalent in basketball, softball, volleyball, and soccer. Among these institutions, women were also less likely to serve as coaches in less high-profile sports, such as field hockey, lacrosse, swimming, and track and field.

Our final dataset included 649 unique Instagram posts published by 98 institutions over two academic years (i.e., 2018-2019 and 2019-2020)—please refer to Table 1 for more information. Notably, we only recorded general Instagram posts found on each athletic department's official handle, thus excluding content posted on Instagram stories. This decision was mainly due to the timeframe we decided to focus on. Indeed, given that we focused on the 2018-2019 and 2019-2020 academic years, it would have been impossible for us to collect Instagram stories. Photos and videos shared on Instagram stories are only available for 24 hours post-publication and then automatically disappear—unless they are added as a profile highlight—, posing logistical constraints for inclusion in our data collection efforts.

Table 1
Number of Teams and Number of Posts Analyzed by NCAA Division I Conference

Conference	Coach	Number of teams	Number of posts
Atlantic Coast Conference	Female	19	45
	Male	22	46
Conference USA	Female	26	49
	Male	21	50
Pac 12 Conference	Female	28	82
	Male	16	35
Big 12 Conference	Female	6	10
	Male	14	23
Southeastern Conference	Female	18	33
	Male	19	42
American Athletic Conference	Female	9	17
	Male	8	17
Sun Belt Conference	Female	6	14
	Male	12	17
Mountain West Conference	Female	15	28
	Male	10	18
Big 10 Conference	Female	22	68
	Male	10	18
Mid-American Conference	Female	13	22
	Male	9	15

Three undergraduate research assistants were instructed to locate the official Instagram accounts of NCAA Division I-FBS athletic departments and collect relevant information regarding the posts. Here it is important to note that we intentionally focused our analyses on the athletic departments' general Instagram accounts rather than sports-specific accounts (e.g., women's soccer team or women's volleyball team) to examine whether there exist gender disparities in how athletic departments promote coaches of women's sports in online spaces. To be included in our dataset, Instagram posts had to be published during two academic years: 2018-2019 (from July 1, 2018, to June 30, 2019) and 2019-2020 (starting on July 1, 2019, and ending on June 30, 2020). The research assistants diligently collected every Instagram post shared by athletic departments during this timeframe.

We selected this specific two-year frame because we wanted to ensure we included a sufficient number of posts to infer meanings and draw inferences about how coaches are promoted online. Also, a two-year timeframe allows us to account for the overrepresentation of sports that may be in season during specific times of the year (e.g., volleyball and soccer typically occurring in the Fall semester). More importantly, this timeframe is unique because the 2018-2019 academic year represented a year of stability within the FBS system while the 2019-2020 academic year brought some of the uncertainties and disruptions of the COVID-19 pandemic. Not only has the COVID-19 pandemic resulted in the cancellation of spring sports during the 2019-2020 academic year, but it also led to significant shifts in financial allocations from parent institutions to athletic departments. For instance, the athletic department at Arizona State University received an additional $50 million from the university as part of their "proactive plan to address the shortfall" exacerbated by the pandemic (Berkowitz, 2022). The Southeastern Conference allocated a $23 million one-time advance to its conference members, a sum to be deducted from future conference distributions (Berkowitz, 2022). More relevant to the purposes of this study, the COVID-19 pandemic has negatively impacted women in sports, including organizational and economic implications, uncertainty of investments, and the wellbeing of athletes and staff personnel (Clarkson et al., 2022; Souter et al., 2022).

We looked at total athletics expenditures before and after COVID-19 to illustrate that by removing football (that is, the primary expense item in college athletics) other sports were negatively affected. We specifically used the Knight-Newhouse College Athletics Database (2023) to investigate spending in Division I-FBS, from 2018-2019 to 2019-2020. We found that the median total athletics expenses were reduced by 6.25% from $70.8 million to $66.4 million; in the same period, total football expenses increased by 5.1% from $19.8 million to $20.8 million. By removing the sport of football, we calculated that expenses on all other sports (including women's sports) were down by 10.5% after the pandemic.

To ensure a fair comparison, we focused exclusively on posts featuring female and male coaches for women's sports teams and excluded Instagram posts featuring coaches of men's sports teams. This means we excluded football from the equation, given that football exerts a huge influence in college sports. The nine women's sports we consider are: basketball, gymnastics, golf, soccer, softball, swimming and div-

ing, tennis, track and field, and volleyball. We purposely selected these nine sports because they typically involve a substantial number of female athletes competing at the intercollegiate level (NCAA, 2021). We decided to exclusively focus on women's sports because these sports are less likely to be the subject of media coverage compared to men's sports (Boczek et al., 2023; Gurrieri, 2021). Moreover, female coaches overwhelmingly coach women's sports teams (Acosta & Carpenter, 2014), even though limited scholarly attention has been devoted to investigations of media portrayals of these coaches.

Procedures

The unit of analysis for this study is each Instagram post shared by athletic departments in the selected timeframe. We compiled a comprehensive list of all institutions within all ten Division I-FBS conferences – the *Power Five* conferences and the *Group of Five* conferences – and instructed three research assistants to locate and record the official Instagram account of each institution. The research assistants collected information about posts that featured female and male coaches for the women's sports teams mentioned above. This information consisted of the publication date of each post, the respective sport, whether the post included a static image (marked as 1) or a video/reel (marked as 0), the gender of the coach featured in the post (coded as 1 for women and 0 for men), number of likes, number of comments, and whether the coach was featured in action (e.g., on the court, in the field, etc.) or off action in non-sports settings (e.g., fundraising events, charity events, etc.). To be clear, press conference settings were operationalized as in action settings, given that during press conferences coaches engage in discussions about the game with both the media and the general public. On the other hand, we operationalized off action shots as scenarios that portray female coaches outside immediate sports-related settings, such as courts, fields, stadiums, or gymnasiums. These depictions showcase women in contexts detached from the competitive settings typically associated with their coaching roles, potentially contributing to the perception that women are not suited for these roles. Off action shots could feature female coaches in a variety of settings, including charity events and office spaces. The researchers also recorded the accompanying caption for each post and the link to access each post.

To ensure the quality and consistency of data collection procedures, all three researchers received extensive training supervised by the first author of the study. The data was gathered between November 2022 and February 2023. Once the data collection was completed, 10% of the overall sample was tested for intercoder reliability using Cohen's kappa. Reliability rates for gender of the coach ($\alpha = 1.00$) and whether the coach was featured "in action" or "off action" ($\alpha = 0.91$) were acceptable.

Results

Our final dataset included 649 unique Instagram posts, featuring 307 different coaches, 164 of whom were women. Institutions in the NCAA Division I-FBS *Pow-*

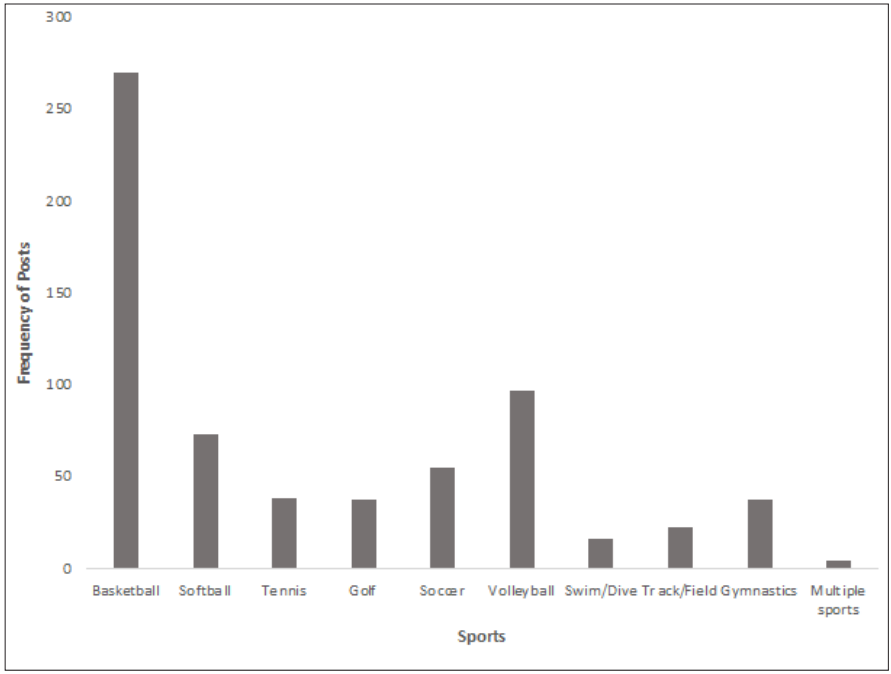
er Five conferences published the majority of Instagram posts ($n = 402$; 61.9% of the sample) compared to institutions in the *Group of Five* conferences ($n = 247$; 38.1% of the sample)—see Table 1 for a complete list of these institutions. As noted in the sections above, these numbers may reflect greater administrative resources devoted to social media as well as larger fan bases that the more affluent institutions tend to enjoy.

The highest number of Instagram posts originated from institutions within the Pac 12 Conference ($n = 117$; 18% of the sample), followed closely by the Conference USA ($n = 99$; 15.3% of the sample). On the other hand, the smallest number of posts came from the Sun Belt Conference ($n = 31$; 4.8% of the sample) immediately preceded by the Big 12 Conference ($n = 33$; 5.1% of the sample). At the institutional level, the University of Arizona stood out with the highest number of posts during the timeframe we analyzed ($n = 26$), followed by the University of Iowa ($n = 21$). Here it is worth noting that a substantial number of institutions (about 9% of the total sample) only published a single Instagram post featuring coaches of women's sports during the two-year timeframe we examined. These institutions encompassed the University of North Texas, West Virginia University, University of Mississippi, University of Missouri, Arkansas State University, Georgia State University, University of Houston, University of Nebraska, and Western Michigan University. Upon scrutinizing these institutions closely, no discernible similarity patterns emerged. They each participate in distinct conferences, spanning both the *Power Five* and the *Group of Five*, and are situated across various geographical regions within the United States. This is, in itself, an important finding about the extent to which institutions promote coaches of women's sports that often do not generate the same revenue as men's sports.

Looking more closely at the types of sports featured on Instagram, basketball coaches took center stage ($n = 270$), mirroring an evident fan interest in basketball among fans compared to other women's sports (see Figure 1 for more details). Additionally, a total of 543 Instagram posts (83.7% of the total sample) contained images, while 106 posts (16.3% of the total sample) comprised videos or reels. 517 posts (79.8% of the total sample) were coded as "in action" while 131 posts (20.2%) were coded as "off action," meaning the coaches were portrayed off the field/court of play, at a social event, fundraising event, and/or other types of non-sports contexts.

Our first hypothesis (H1) posited that female coaches are underrepresented in athletic departments' Instagram posts compared to male coaches for the same women's sports teams. We conducted a chi-square test comparing the frequency of occurrence of each Instagram post featuring female coaches and male coaches, and this difference was statistically significant, $\chi^2 = 17.09$, df = 1, $p < .001$, thus rejecting the hypothesis. Descriptive statistics reveal that 58.1% of all Instagram posts ($n = 375$) featured a female coach whereas a total of 274 posts (41.9% of the sample) featured a male coach for the same women's sports teams. When comparing posts featuring coaches from the *Power Five* and the *Group of Five* institutions, we did not find significant differences, $\chi^2 = 1.93$, df = 1, $p > .05$, acknowledging potential underrepresentation of female coaches, irrespective of athletic department finances. Within

Figure 1
Frequency of Instagram Posts by Sport



the *Power Five* institutions, 60.3% of Instagram posts (n = 241) featured female coaches while 39.8% (n = 159) featured male coaches. Looking at the *Group of Five* institutions, 54.7% of posts featured female coaches (n = 134) and 45.3% of posts featured male coaches (n = 111).

Our second hypothesis (H2) predicted that female coaches are represented off action at higher rates than male coaches. To test H2, we conducted another chi-square analysis and found a non-significant interaction, χ^2 = .824, df = 1, p >.05. Contrary to our expectation, we found that comparable percentages of Instagram posts depicted female coaches (10.9%) and male coaches (9.0%) in off action settings. An example of an off action shot from our dataset captures Amy Pauly, the head coach of University of Alabama - Birmingham's women's volleyball team at her house during the quarantine period in an Instagram post dated April 29, 2020. Another example captures Cori Close, the women's head basketball coach at the University of California Los Angeles (UCLA) posing for pictures with her players inside a broadcast newsroom on October 7, 2019.

Discussion & Conclusion

This study investigated the representation of female and male coaches within the same NCAA Division I-FBS women's sports teams on Instagram. We collected

a total of 649 Instagram posts from athletic departments' official accounts during the 2018-2019 and 2019-2020 academic years. Given that past literature has extensively documented the underrepresentation and marginalization of women in sports (Carson et al., 2018; Kokkonen, 2019; Sabo et al., 2016; Sheffer, 2020), we expected to find spillover effects of this dynamic in the ways female coaches were featured on Instagram compared to their male colleagues. Contrary to our first expectation (H1), we found a generally balanced representation of both female and male coaches for the same women's sports teams across athletic departments' Instagram posts. This seems to suggest that when athletic departments decide to promote coaches on Instagram, they do so in an equitable manner. Furthermore, we also anticipated that female coaches would be represented off action at higher rates than their male counterparts (H2), but we found no support for this hypothesis.

Taken together, our findings could be attributed to a renewed interest in women's sports and the broader discourse surrounding gender equity, particularly just after the turn of Title IX's 50th anniversary (Elfman, 2022). It is possible that individuals and organizations on social media have contributed to shaping a transformative narrative around women in sports, potentially aiding in disrupting the hegemonic masculinity of sports and in dismantling some of the entrenched gender stereotypes that hinder women's success in traditionally masculine domains (LaVoi & Calhoun, 2014). It is also possible that athletic departments and their staff may take the gender of the coach into consideration when trying to promote women's sports on social media, but we are unable to verify this claim with the data we collected—especially since we did not collect the number of posts featuring coaches of men's sports. Future studies, however, should consider integrating this information to make even more informative comparisons and determine which institutions employ equitable practices in their promotional efforts.

Future research should also delve deeper into audience demographics to gain valuable insights into how different individuals may react to promotional content featuring female versus male coaches. One way to accomplish this would be to integrate the results of this study with surveys of online users who follow Division I-FBS athletic departments. This approach will help shed light on user motivations and their expectations when following their teams on social media. Alternatively, qualitative interviews or focus groups with Instagram users would allow to dig deeper into what followers seek and require from athletics' departments when it comes to women's sports.

This study has some limitations. Our sample of posts is limited to a single social media platform, Instagram, and does not account for coach promotion on other online platforms (e.g., Facebook, etc.) and other types of media, including traditional media. Also, we only included posts from official Instagram accounts rather than specific accounts of women's sports. For these reasons, we cannot confidently assert whether the gender balance we detected on Instagram posts could translate into other spaces outside of our scope of investigation (Whiteside et al., 2012). Instagram serves as just one type of online media, and its use and affordances differ substantially from other platforms, such as Twitter (now X) and Facebook. A content analysis

combining information from multiple social media sources, or even different avenues within Instagram (i.e., stories), could likely help elucidate whether promotion of coaches is truly balanced on all platforms or whether this is a reality that only pertains to Instagram. Although we contend that future iterations of this study could involve empirical investigations of Instagram stories, these studies should draw from interpretivist research designs, qualitative content analyses, deductive and inductive reasoning to conceptualize and analyze a selected corpus of multimodal social media content (for specific methodological guidelines, see Serafini & Reid, 2019). Multimodal content analyses could be helpful to compare the content featured on Instagram stories and Instagram posts.

Relatedly, we acknowledge that the inferences we make from our findings are relative to the posts that we included in our data collection. Our sample only included information about Instagram posts that featured coaches for some women's teams across NCAA Division I-FBS 's conferences. We only focused on Division I sports only because even if they differ significantly in revenue generated from athletics, they tend to allocate substantial resources to their marketing and communication departments that oversee the social media promotion of women's sports teams and their coaches (Cheslock & Knight, 2015). We also acknowledge that the scope of this study did not allow for additional investigation into Division II and Division III, but future research could build upon this study with similar investigations in other divisions.

Given these limitations, we are unable to infer whether representation of women's sports teams on Instagram compares to representation of men's teams for similar sports or even whether our findings are relative only to NCAA Division I. Investigating this could prove useful to content creators working in athletic departments. To go one step further, future surveys of content creators affiliated with the universities and colleges that we included in our sample may offer a clearer picture of the motivations behind the type of content that is published on social media platforms. Athletic departments should operate under Title IX's regulations, which extend to the treatment of women's and men's sports, including their efforts to promote these teams in online spaces.

Importantly, our analyses do not consider other factors that may affect how female coaches are promoted on Instagram, such as their race/ethnicity, sexuality, age, and popularity. Although we recognize that this limitation may hinder our ability to garner whether discrimination may occur at different levels (e.g., interpersonal and organizational), our focus on the gender of the coach was deliberate in order to discern potential disparities in the promotion of female and male coaches for the same women's sports. Future research could investigate these intersectional dynamics further to provide a more comprehensive understanding of the many factors that may influence the promotion of coaches whose positionalities do not conform to prevailing ideals of white masculinity in sports leadership.

While promotion of coaches on Instagram appears to be balanced based on gender, reaching true equity in intercollegiate sports requires a more determined approach encompassing various levels and job dimensions, from recruitment to salary

to promotion of coaches. Completely balanced and equitable promotion of coaches may be difficult to achieve, especially when factoring the influence of college football into this equation. Nevertheless, athletic departments should strive for their best efforts when promoting coaches on social media, recognizing the potential of these platforms to shape perceptions of who is valued in traditionally masculine terrains like sports.

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"From Sweats to Suits": Administrators' Recommendations for Student-Athlete Career Development Services

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Division I college athletes are faced with numerous academic challenges during their time in school, including conflicts of interest between the university (e.g., academic success), athletic department (e.g., athletic success), and their own priorities (e.g., quality of life, balancing academic and athletic success). These growing demands may impact student-athletes' ability to prepare for a career after sport. Thus, there is a need for high-quality student-athlete career development programming and services in student-athlete support centers. The purpose of this study was to gain senior administrators' perspectives of student-athlete support services to determine best practices of career development programming. Division I administrators (N = 10), who oversee student-athlete support centers, provided insight and feedback via semi-structured interviews. A directed qualitative content analysis was conducted to discern best practices, levels of student-athlete engagement, and preferred attributes of career development personnel. The findings provide specific recommendations, which can help other student-athlete career development personnel improve their programs and adds to the holistic care literature.

"Almost all of us will go pro in something other than sports" was a popular NCAA commercial in the early 2010s that showed student-athletes and their future professions. A 2019 NCAA social media campaign echoed the same, noting "only 2% of college athletes will go pro" (NCAA, 2021). In an effort to focus on the mission of Division I college athletics as a part of higher education, athletes as scholars, and highlighting amateurism at the time, the NCAA also conducted and promoted research data on their website showing the low percentages of student-athletes going from collegiate sport to professional sport. Given the infrequency of college athletes transitioning to a professional sport career, college athletic departments began establishing career development resources and support for students within athletic departments to assist students in the transition to careers.

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Student-athletes are faced with numerous responsibilities and the commercialization of NCAA Division I sports has intensified pressures, thereby fueling a heightened demand for enhanced academic support (Benson, 2000). Additionally, student-athletes feel pressure from coaches, families, friends, and professors regarding their academic and athletic performance while in college (Benson, 2000). Despite athletic departments' efforts to improve academic experience, a gap regarding student-athlete career development still exists. The heightened emphasis on student-athlete athletic identities only hampers their career transition, as athletes struggle to envision themselves beyond their athletic roles. Further, a general lack of preparedness for the workforce limits the opportunities that student-athletes may pursue after their college athletic career finishes. Within academic support, student-athlete career development to prepare individuals for life after sport remains an area of focus and is a growing area of research. Sport management research must increase its emphasis on student-athlete career development services to examine current offerings and provide practical recommendations to improve the current landscape.

Student-athletes often experience difficulties in balancing school and sports (Bell, 2009; Comeaux & Harrison, 2011; Hatteberg, 2020). A fundamental aspect of comprehending the student-athlete experience resides in the holistic care model, which addresses mental, social, and emotional well-being alongside academic and athletic pursuits (Hotz, 2003). Within student-athlete support centers, collegiate teams embrace this holistic approach, bringing together a diverse range of professionals to empower student-athletes with different motivations, majors, academic achievements, and ambitions to achieve their personal and professional goals. Preparing a student-athlete for life after sport and their chosen profession is a part of this approach.

This study highlights the need for continued research to bridge the gaps in student-athlete support and to better understand the nuances of career preparation and transition for student-athletes. The purpose of this study was to gain the perspectives of senior administrators of student-athlete support services to determine best practices of career development programming. Additionally, the study seeks to determine key attributes in effective student-athlete career development personnel. By examining strategies for successful career development programming, perceptions of the offered services, and attributes of successful student-athlete career development personnel, this study contributes to the ongoing discourse on improving the holistic well-being and all-around success of student-athletes. As the landscape of college athletics continues to evolve, the pursuit of a comprehensive support system remains crucial to ensuring that student-athletes thrive both on and off the field.

Literature Review

Challenges to Student-Athlete Career Development

While exploring career development programming, it is necessary to consider the academic and career preparedness challenges student-athletes face during their time in college (Davis et al., 2022; Huml et al., 2019). Some of these are spurred

by the institutional and structural nature of athletics within a university, such as competing interests between the university, athletic department, and the student-athlete which may lead to conflict of interest amongst these groups. The university's funding structure may create competing interests between the athletic department's goals (focused on sports success) and the university's broader academic mission, creating tension in the expectations placed on student-athletes. This could potentially lead to conflicts in resource allocation and priorities by athletic department staff, such as coaches, academic support services, advisors, or career counselors.

Moreover, student-athletes face academic issues with eligibility, course scheduling around practices, or rigor of degree programs. Huml et al. (2014) found that student-athletes believe that their advisors are more focused on maintaining eligibility than achieving academic goals. This can materialize in the form of academic clustering, which is a significant challenge that is often cited as a point of contention (Gurney et al., 2017; Huml et al., 2019). This clustering includes the practice of student-athlete's pursuing majors that are completely irrelevant to the career that they wish to pursue upon graduation (Paule-Koba, 2019). While key metrics like Academic Progress Rate (APR) and Graduation Success Rate (GSR) may increase via academic clustering, the practice itself remains harmful because it discourages student-athletes from pursuing their desired major and can influence potential career development.

Another institutional challenge placed on athletes that may impact college to career success is the sheer amount of time that they must dedicate to their sport. The NCAA attempted to limit student-athlete time commitments on sport to a maximum of 20 hours per week (NCAA, 2017). However, these time limits are frequently exceeded, which leaves less and less time for academic endeavors (Benford, 2007). This includes limiting opportunities to do internships or practicum-based learning, which may be effective for career placement. These time constraints on student-athletes can negatively impact their personal life balance and can result in high levels of athlete identity and/or role engulfment (Zvosec et al., 2023). In other words, student-athletes have a difficult time seeing themselves as anything other than an athlete, which makes career transition even more difficult due to the uncertainty of what is next (Linnemeyer & Brown, 2010; Moiseichik et al., 2019; Smith & Hardin, 2020). This issue of inflated athletic identity can cause an unpleasant career transition from college athletics to the workforce or limit collegiate focus on career development as student-athletes search for a new or reshaped identity (Kidd et al., 2018; Park et al., 2012).

Career transition is difficult for most people as the process often involves a drastic life change. For student-athletes, the transition itself is not the only issue, but also career preparedness in general (Stokowski et al., 2019). Despite increased programming from these academic support centers, student-athletes are graduating unprepared to enter the workforce (Stokowski et al., 2019). Student-athletes may lack a basic understanding of career development principles like creating a resumé, drafting a cover letter, building a professional network, volunteering/job shadowing experience and more (Navarro & McCormick, 2017). However, a case study of

student-athletes at Clemson University showed that some of the HIPs, like pursuing internships while in school, were instrumental in developing key workplace skills (Coffin et al., 2021). Despite these areas of improvement, more research is needed. It is the responsibility of academicians and practitioners to discover and implement the solutions for the betterment of the student-athlete experience. Thus, perspectives of multiples administrators are necessary to understand the nature of career development practices at student-athlete support centers.

It has been well documented that student-athletes with high athletic identity often neglect their other identities, including their social and career related (Kidd et al., 2018; Smith & Hardin, 2018). Thus, the need for athletic administrators to have quality programming that reaches these students and provides them with the information to develop their career is evident. Further, Division I athletes studied by Rubin and Moses (2017) pointed to the need for more career development services, indicating athletes themselves desire this information for life after sport. To create effective programming, Navarro (2014) recommended Division I career planning be provided for student-athletes throughout their academic career, with special emphasis on their senior year, and suggested working across campus for resources for internships and other student experiences. The career development programming is often housed within academic support services centers, managed by athletic administrators.

Academic Support Service Centers and Career Development

Because of the challenges, athletic department student-athlete support centers are an important part of the athlete experience. The support staff of these centers often provide academic, mental health, and career development services for student-athletes. Student-athlete support centers are not a new concept as they initially helped address academic issues, but the focus on holistic care is becoming more important. In the 1970s and 1980s, critics argued that many athletic programs at large Division I institutions altered their academic standards to admit certain high-caliber student-athletes who have lower academic credentials than other students within the university (Ridpath, 2010). This resulted in student-athletes having generally lower graduation rates, and those who did graduate were often unprepared for a professional career after sport (Huml et al., 2014). The solution offered by most athletic programs was to invest in student-athlete support centers (Ridpath, 2010). These support centers provide services to student-athletes in a multitude of areas: academics, learning disabilities, career development, and life skills.

Other pressures outside of the NCAA's mandated standards (e.g., minimum GPA eligibility requirements) also influenced athletic programs to invest in these programs. For example, the commercialization of college sport in the 1990s and 2000s when an influx of dollars was infused into athletic programs. This new money put tremendous emphasis on winning and led to added stress and time demands on student-athletes (e.g., increases in practices, games, travel, training). These changes brought forth a growing need for expanded student-athlete support (Broughton & Neyer, 2001). The dollars generated by media contracts of the 2000s and 2010s created new revenue streams which led to many academic facility enhancements and

staff expansions for major Division I programs. To support their student-athletes, some universities invested millions of dollars in their student-athlete support centers. For example, the University of Arkansas spent $23 million on their 55,000 square foot student-athlete support center in 2015 (Hutchinson, 2015). Shortly after, the University of Florida's Hawkins Center which totaled $25 million in construction costs was opened in 2016 (Parler, 2016).

Currently, student-athlete support centers offer a much greater set of services which include, but are not limited to, academic advising, tutoring, mentoring, life skills training, career development, community service opportunities, networking events, internships, volunteering opportunities, job shadowing, career transition workshops, financial literacy training and more (Botelho, 2019). Despite expanded student-athlete support centers, student-athletes experience a list of academic and career preparedness challenges (Davis et al., 2022; Huml et al., 2019). Many of these challenges may be out of the student-athlete's control (Fearon et al., 2011). For example, continuously rising pressures to win on the field and succeed in the classroom force student-athletes into a position where they sometimes must choose between the two. Because of the power and scope of college athletics, student-athletes often choose to prioritize sport, as that is the entity that pays their cost of attendance (Huml, 2019). In addition to this issue, multiple researchers note that many student-athletes' graduate unaware of the many student-athlete support services that are offered (Davis, 2022; Dietsch, 2012; Fouad et al., 2009). This outcome may naturally lead to an unpleasant career transition following college sport due to lack of preparedness (Zvosec et al., 2023).

Because academic standards at Division I schools are often reduced during the admissions process, many student-athletes enter college unprepared for the transition from high school (Coffin et al., 2021; Linnemayer & Brown, 2010). Student-athletes may need extra help on a specific subject because they did not receive a rigorous enough education while in high school, or be deficient in study skills, time management skills, communication skills or a combination. At most Power 5 schools, student-athlete support is housed within the athletic department and is funded through athletic department resources. At many smaller schools, student-athlete support is funded by resources from the university itself (Watkins et al., 2022). The budget constraints at these schools may limit the scope and effectiveness of academic support programs compared to larger Power 5 institutions. Regardless, student-athlete academic eligibility and transition from high school to college is an athletic department responsibility. These resources often come in the form of high impact practices (HIPs, e.g., creating ePortfolios, First-Year Seminars, Internships, Learning Communities, Service Learning and Community-Based Learning; American Association of Colleges and Universities, 2023). While these are effective programs and services offered to student-athletes should not be reduced to these existing HIPs. Calls for extended research in this area are well documented and this study seeks to help identify some of those gaps (Brouwer et al., 2022; Smith & Hardin, 2020).

The setup of these of student-athlete support centers usually include a combination of top-level administrator(s) (e.g., senior associate athletic director, associ-

ate athletic director, assistant athletic director), mid-level associates (e.g., academic advisors, career development specialists, life skills development specialists learning specialists) and part-time or graduate assistant employees (e.g., receptionists, tutors, student-athlete mentors). The centers are typically funded exclusively by the athletics department's budget; this allows for the athletic department to keep their facilities exclusive to the student-athlete population. Sport management research has examined academic advisors' (Stokowski et al., 2016; Stokowski et al., 2020) and student-athletes' (Huml et al., 2014; Otto et al., 2019; Parsons, 2013) perceptions of the student-athlete experience. Despite senior administrators of student-athlete support overseeing student-athlete career development programming in most Division I athletic programs, their perspectives are rarely the focus of scholarly inquiry. Their insight can help inform career development programming, which is an essential part of the holistic development of the individual. This study sought to fill this gap and did so by targeting a participant pool of top-level administrators that oversaw the whole student-athlete support operation.

Conceptual Framework: Holistic Care and Interprofessional Teams for Student-Athletes

Recently, researchers have noted the importance of holistic care for the student-athletes (Beasley et al., 2022a; McHenry et al., 2021; Waller et al., 2016). Holistic care addresses athlete care beyond the physical, including the mental, social, and emotional well-being associated with the student-athlete experience (Hotz, 2003). According to Waller and colleagues (2016), a true holistic care model for a student-athlete would include a long list of professionals who help aid the student-athlete in their college experience. These professionals include, but are not limited to, coach, nutritionist, academic advisor, strength coach, mental health professional, life skills coach, doctor, trainer, chaplain, sport media advisor, and more. The integration and communication among and between these groups provides an interprofessional team. As such, scholars are using the holistic care model to understand the importance and role of various groups who assist the athletes, including athletic trainers (Beasley et al., 2022a), team chaplains (Beasley et al., 2022b; Waller et al., 2016) and mental health care professionals (McHenry et al., 2022). Following this perspective, we use the holistic approach and focus on a key contributor that has been under examined—the career development staff. Student-athlete support centers are often the hub of holistic care in a Division I athletic program. At a minimum, these centers typically house academic advising services, learning specialist services, tutoring, and career development services. Other larger, more established student-athlete academic centers may also offer nutritional services, mental health services, and more student-centric resources. Student-athlete support centers play an integral role in shaping the academic and career development experience for the student-athlete as a person. Thus, the athletic administrators in the career development sector provide the resources necessary for students to prepare for and achieve their next steps after graduation.

A holistic care model within an athletic department should create interprofes-

sional teams that address the many facets of the student-athlete experience. Interprofessional teams refer to departments which employ people with different professional skillsets. The benefits of constructing an interprofessional team are quite suitable for the holistic care model for the student-athlete (Bader & Martin, 2019; Beasley et al., 2022a; Steffen, 2014). In the case of the student-athlete support center, there are varying types of employees specializing in different areas to help the student-athlete develop during their college years (Botelho, 2019). For example, within a student-athlete support center, academic advisors develop educational opportunities, career development specialists develop networking and job training opportunities, and learning specialists aid in the learning process. Each of these employees have a unique set of skills that make a direct impact on the life of the student-athlete and their experience at their university. Previous research has examined desirable attributes of other athletic department personnel including entry-level employees (Bravo et al., 2013). Their study found that communication skills are one of the most important skills to have success within college athletics (Bravo et al., 2013). However, there still exists a gap in understanding which attributes make successful student-athlete career development personnel. Given the importance of this role, we need to discern the best attributes when working in student-athlete career development.

The idea of an interprofessional team is integral to creating a holistic care model of care for the student-athlete (Beasley et al., 2022a). In this study, we examine holistic care that exists within the student-athlete academic support center, as well as the interprofessional teams that are constructed to create this model of care. The collaborative nature of interprofessional teams is key to constructing a holistic approach to student-athlete wellbeing (Barkley et al., 2018). The collaboration encourages student-athlete career development programs to offer a range of services to their student-athletes. These diverse offerings also allow athletic department personnel to understand their athletes better, which in turn should allow them to provide a better model of care (Ventegodt et al., 2016). Lastly, the scope of holistic care models for student-athletes are dependent upon the number of resources that an athletic department commits (Huffman, 2014; Waller et al., 2016). Thus, athletic department buy-in is crucial to holistic care.

Waller and colleagues (2016) provide five core principles to providing collaborative care. These five principles are individualized care, population-based care, measurement-based care, evidence-based care, accountable care. Individualized care highlights the personalization of care based on a given athlete's goals. Population-based care notes the importance of tracking and correcting cases of non-participating student-athletes. Population-based care ensures that no athlete is left out of student-athlete career development programming. Measurement-based care is characterized by setting measurable and quantifiable goals for an athlete to strive for with respect to student-athlete career development. Evidence-based care refers to care that is backed by research. Lastly, accountable care ensures that the athletic department personnel are providing high-quality care. Waller et al. (2016) suggests each of these principles must be realized in order to provide a true model of collaborative and holistic care. As such, understanding the career development opportunities and

programming available and administrators' perspectives of career development and career development personnel will inform future programming and hiring of staff to manage that programming.

Current Study

The purpose of this study was to gain the perspectives of senior administrators of student-athlete support services to determine current best practices of career development programming. As the leaders of the career services centers and members of the holistic care team for student-athletes, we need their perspectives on current practices to establish baselines and recommendations for future programming and practices regarding career development and hiring career development support staff. Through the lens of holistic care, our study will identify these perspectives through semi-structured interview discussions with the leaders (i.e., senior associate athletic directors, associate athletic directors, assistant athletic director). For the purpose of this study, three research questions were investigated:

RQ1: *What do administrators perceive to be the best student-athlete career development programming practices at their respective schools?*

RQ2: *How do administrators perceive student-athletes' reception of career development programming?*

RQ3: *According to administrators, what attributes define successful student-athlete career development personnel?*

Methodology

A directed qualitative content analysis, a deductive approach, was conducted for the purpose of this study (Kibiswa, 2019). This analysis allowed for existing theory and literature to guide the data collection and coding processes. Upon receiving Institutional Review Board approval, purposive sampling was used to select Division I senior administrators of student-athlete support, so we targeted staff who supervise all aspects of academic and career-related matters for current student-athletes at their institution (e.g., Assistant Athletic Director - Student-Athlete Affairs; Senior Associate Athletic Director - Office of Student Life). Individuals were invited via email to participate in a one-time semi-structured interview about their institutions' academic and career development services. A total of 10 participants agreed to participate in the study and provided informed consent. The interviews were conducted by digital teleconference (e.g., WebEx) over a three-month period in the spring of 2022. A majority of the interviews were conducted by the lead author (n = 7). Using the same interview guide, the remaining interviews were conducted by other members of the research team. Every interview was recorded and lasted approximately 40 minutes with the longest interview lasting 55 minutes. Subsequently, each interviewer transcribed their interview in MS Word. Later, the lead author categorized interview responses, both closed and open, based on research questions in MS Excel.

The sample included participants from the Power Five and the Group of Five (i.e., American, Atlantic Coast, Southeastern, and Sun Belt Conferences). The par-

ticipants' average number of years working in student-athlete career developed was 11.9 years. Both the Group of and Power Five institutions were selected to show the range of practices used throughout Division I.

Table 1
Overview of Participants

Job Position	Conference	Years in Field
Director of Student-Athlete Academic Services	American	14
Associate Athletic Director - Student Athlete Enhancement	American	16
Associate Athletic Director for Academic Services	Atlantic Coast	15
Total Person Program Manager	Atlantic Coast	7
Assistant Athletic Director/Student-Athlete Development & Brand Awareness	Southeastern	7
Director of Student Development	Southeastern	7
Senior Associate Athletic Director - Academic Affairs	Southeastern	14
Director Student-Athlete Development	Sun Belt	11
Deputy Director of Athletics / Administration / Senior Woman Administrator	Sun Belt	15
Senior Associate Athletic Director – Academics and Student-Athlete Development	Sun Belt	13

Data Collection

The research questions for this study were informed by existing literature and theory. Based on the previous literature and to address the purpose of this study, the research team created a six-question interview guide prior to beginning interviews. The interview guide ensured that each research question would be addressed as four questions focused on RQ1, while one question was asked for RQ2, and an additional question answered RQ3. Each interview was further guided through clarifying and probing questions. All responses were included in the data analysis. By partaking in semi-structured interviews with an interview guide, the research team was able to ask, "targeted questions about the predetermined categories," which is associated with directed qualitative content analyses (Hseish & Shannon, 2005, p. 1281).

Data Analysis

A deductive approach based in holistic care and previous literature was conducted (Hsieh & Shannon, 2005). The literature review and frameworks helped form our codes. Additionally, consistent with Hsieh and Shannon (2005), we included other codes that were present within our data. This second strategy includes codes not directly related to holistic care because it helps identify salient information outside the scope of literature review and improves trustworthiness (Hsieh & Shannon, 2005).

Kibiswa's (2019) eight-step approach to deductive qualitative analysis was undertaken: 1) creating the study frame and operational definitions, 2) determining the unit of analysis, 3) becoming familiar with the data, 4) coding, 5) drawing conclusions, 6) ensuring trustworthiness, 7) making presentation of the data, and 8) providing thick description of the findings. One member of the research team created a study frame and operational definitions (codebook) for each RQ based on the existing literature before engaging in line-by-line analysis of the data. The coding process moved from codes, to categories, to themes (Saldaña, 2021). Through the coding process, current research was supported while new insights were generated (Kibiswa, 2019). A total of four themes were created to address RQ1, 3 for RQ2, and 4 for RQ3. The research team member updated the codebook based on the findings. The codebook and data were shared with two other members of the research team. Upon reviewing the codebook and data, no further changes were made. Subsequently, the two members of the research team individually coded the data based on the agreed-upon codebook.

Trustworthiness

The research team engaged in various methods to ensure trustworthiness of the data and the findings. After the two authors coded the data individually, they met to calculate intercoder reliability. The researchers evaluated reliability by examining 20% of the data pertaining to RQ1, RQ2, and RQ3, which was deemed acceptable by (O'Connor & Joffe, 2020). This resulted in (k = .75) across the codebook, which indicates acceptable reliability (Landis & Koch, 1977). Peer debriefing with a third member of the research team took place to address discrepancies and to ensure accurate representation of the data. Throughout the findings section, a thick description of the data is provided so readers can verify and interpret the findings themselves (Kibiswa, 2019).

Findings

Research Question 1

The purpose of RQ1 was to discern the current and best practices and strategies implemented by student-athlete support centers for successful career development programming. The analysis of participant responses led to the generation of four themes: 1) Collaboration, 2) Diverse Offerings, 3) Understanding the College Athlete, and 4) Athletic Department Buy-In, which are further outlined below.

Collaboration

Participants discussed the importance of collaborating with parties outside of the athletic department. Collaboration was imperative across a variety of key stakeholders including community leaders, alumni, and the university. In terms of community leaders, many participants implored other career development personnel to contact local businesses, community partners, and athletic department sponsors to create internship opportunities, join networking nights, or become mentors. For example, one participant stated, "Looking at your corporate sponsor list and thinking

we can put some of our student-athletes in these opportunities… is a big piece of it." Similarly, other participants highlighted the importance of connecting with businesses in the surrounding area. One participant shared, "We have lots of businesses in the (city) area. There's lots of opportunities for that." Another mirrored this sentiment and stated, "If (student-athletes) tell us what they are interested in, we can identify through the community where that can be done."

Alumni, both former student-athletes and general university alum, were identified as another key stakeholder to engage. Alumni were considered relatable to the athletes. Additionally, alumni demonstrated interest in the university and the success of the current student-athletes. One participant stated:

> (Alumni) can have an immediate connection. 'I played here at (institution) also. And, I also was a student-athlete. So now we already have that in common.' (As a student-athlete) I know I'm in a room of like-minded people that makes me a little more comfortable to come out of my shell to someone.

It is important to note that while use of alumni was common amongst the participants, programs differed in how they implemented alumni support into their program. One participant was proactive about intentionally connecting students about to graduate to alumni in positions that were consistent with the current student-athlete's interests. He stated:

> Specifically with our seniors, we're trying to now do a thing where we're connecting them with another alum before they leave here intentionally. So not like, 'Hey, call us if you need something or we'll help hook you up with people like once you're gone', but let's intentionally give you a connection to another alum that makes sense before you leave

Others recognized social media as a tool to help athletes connect with alum, "We all know the power of social media. Now you can use social media to connect with alumni who are in an industry that you have a passion for or an interest in. We have direct connections." Most routinely, programs brought their alumni in for panels or networking events.

Lastly, participants encouraged other career development personnel to not solely work within the silo of the athletic department, but to use the resources available through the university. For example, one participant said, "we really rely heavily on our university's collaboration and their career center. They may have more expertise in dealing with 1-on-1 engagements with student-athletes, and with students in general."

Diverse Offerings

Through the conversations with the career development personnel, it was apparent that there was not one program offering that was more successful or desirable than others. Participants emphasized the ability to provide athletes with a plethora of programming options, primarily ones that encouraged relationship building, focused on the career transition, created internship opportunities, and emphasized holistic care. Further, although services often were similar across athletic departments, each institution conducted the offerings in a unique manner. Networking was considered

of the utmost importance across participants. As one participant stated, "Network equals net worth." Therefore, encouraging relationship building was considered necessary. This resulted in offerings such as panel discussions, career fairs, and mentoring. For example, one institution, "did a round Robin where student-athletes could talk to former student-athletes and find out why they were so successful…they did a panel up front and then after that they would move around those tables and talk with the student athletes individually."

Similarly, participants articulated the vitalness of internship opportunities, which compared to other forms of programming differed the most from athletic department to athletic department. One program even arranged a summer internship program:

> We also offer a number of internship programs. We have 20 spots. What that entails is during the summer the student athletes that apply and then are selected for it, get the equivalency of a full room and board part of the summer scholarship. So, even though they're not enrolled in classes, they're still able to get essentially what they would've gotten for their scholarship… It's over six weeks. They get about five hours four days a week. And on the fifth day, they have a 60-to-75-minute professional development meeting with our career team.

To help secure internships and jobs post-graduation entry-level positions, athletic departments often discussed career transition services. Some institutions implemented one off resume workshops, mock interviews, and etiquette dinners throughout the year. However, several institutions utilized a multi-year plan to accomplish these goals, where each year student-athletes focused on one part of the transition process (e.g., one year for resume, one year for networking). One such participant stated, "Our 4–5-year program is really built for our student-athletes to transition to careers. Every year it builds on itself." Meanwhile, other institutions offered classes specifically designed for student-athletes and student-athlete needs. For example, one school offered a three-credit career transition course specifically designed for student-athletes that could be taken as an elective which counted towards their degree.

Despite emphasis on traditional career preparation, many athletic departments recognized the necessity of a holistic approach. As such, athletic departments offered programming such as financial literacy, mental health services, and life skills training. Institutions were particularly interested in financial literacy, especially during the athlete's final year. One participant stated:

> The senior year is really the bow on that package to transition you out. Where do you want to stay? How much is that going to cost? Where do you want to go? Are you prepared for your first apartment? Are you prepared for the bills that come with being a young adult?

From a mental health perspective, almost all participants in our study mentioned that they had seen noticeable change in their athletic programs' commitment to student-athlete mental health. Despite this positive trend, mental health services varied greatly amongst the schools. One school noted that their department created a space for multiple full-time mental health providers on-site for student-athletes to work with at any time. While others with fewer resources and lesser commitment noted that they have someone that comes in to discuss mental health with student-athletes.

Understanding the Athlete

The third theme was created because of participants acknowledging the uniqueness of the student-athlete population. Thus, to implement successful career development programming, participants encouraged other career development personnel to consider the athletes they are serving. First, participants noted that there are difficulties around scheduling internships and other offerings based on student-athletes' busy schedules. One participant asserted that, "It is very difficult for student athletes to go through internships because of the amount of time that's already requested of them on a daily basis." However, it is imperative to consider their schedules when establishing services.

Further, career development personnel need to be up to date with the needs and wants of their student-athletes. This included understanding what careers and services athletes were interested in. For example, one institution conducts their own research among student-athletes, "Every three or so years, we do a pretty in-depth survey and analysis with constituents, including student athletes, coaches, staff to make sure we're staying relevant and ahead of the curve for what we need here." If athletes do not know a career, then career development personnel need to be prepared to personalize their advice and help student-athletes uncover their passions through "personality assessments" and 1-on-1 conversations. For instance, one participant shared:

> I love using the whiteboard that I have in my office. I'm a visual guy, so I like to draw a lot of illustrations, so say it's a softball player. Softball is what you do. It's not who you are at the end of the day. Softball is a gift of yours is a passion of yours that can take you places, but you're more than just that…In addition to hitting the softball or catching the softball you have more innate value than being a softball player. I know that there are other things that you or your family or your friends tell you that you're good at this. You're gifted at this…If you can't play softball for the whole day, you have no schoolwork, the whole day is yours, what would you do for fun? What brings you joy? How does that make you feel? And the deeper you dig with the questions, it allows them, a safe space, the freedom to be who they are, and then hopefully to dig out that goal.

Lastly, participants denoted that many student-athletes are unable to recognize the transferable skills they have accumulated over their athletic career. Therefore, career development personnel need to be able to acknowledge these skills. Further, personnel need to help student-athletes build confidence in their abilities and learn how to articulate their value to future employers:

> They (student-athletes) are incredibly confident in their sport but outside of their sport they are not confident. It tracks. They are feeling that their value is being a student-athlete. I would tell them to talk about quantifying or the language to use for being a student-athlete. Talk about all the transferable skills.

With the help of student-athlete career development personnel, student-athletes can and will realize their potential in the professional workplace.

Athletic Department Buy-In

These efforts were predicated on athletic department buy-in, the final theme of RQ1. Participants believed that athletic department buy-in is vital for success. Keys to athletic department buy-in included repetition, coach support, and accessible resources. Career development personnel felt that their efforts were more meaningful when they had several touchpoints with athletes throughout their career, including during the recruiting process.

For example, repetition was exhibited when institutions curated 4-year plans to ensure career development each year. One participant stated, "We mandate student-athletes to go through career planning every year that they are here with us. I am very heavily involved in recruiting, so it honestly starts then."

Participants mentioned the importance of coach buy-in to help facilitate a culture around caring about future career success. For instance, one person stated:

> I think the major thing you have to have from a coach is "buy in." … if you have a coach who believes in what you were talking about, they'll send them [the student-athletes] to you. But if you have a coach who could care less, they only care about the wins and losses, then you have to work double as hard to try to get the student-athlete to care too.

Career development personnel are able to provide better support for athletes when given more resources. For instance, more resources could result in increased staffing, off-campus networking trips, holistic care and individualized support. One participant stated, "to me, the closer we can get to offering truly individualized support, the better we are serving what today's student athlete's needs are. And of course, we can't have a complete army. So, I would literally want to take that money and, and put it into people so that we can get closer to having more individualized support."

Overall, the findings suggested that successful career development programming for student-athletes relies on collaboration, diverse offerings, an understanding of the unique athlete population, and strong buy-in from the athletic department.

Table 2
Recommended Student-Athlete Career Development Practices

Practice	Examples	Practical Applications
Collaboration	Alumni	*Maintain a list of former student-athletes' contact information and career trajectories
	Sponsors	*Connect with sponsors to offer internship or job shadowing opportunities
	Community Leaders	*Bring community leaders in for networking nights or roundtables
	University Services	*Ask university career center to assist in organizing career fairs
Diverse Offerings	Encourage Relationship Building	*Emphasize the importance of networking and facilitate opportunities
	Internships	*Help athletes connect with potential internship opportunities. *Create opportunities that are more suitable to athlete schedule or on-campus
	Career Transition Programming	*Resume workshops *Mock interviews *Etiquette dinners
	Holistic Care Offerings	*Financial literacy seminars *Mental-health services
Understand the Student-Athlete	Know Athletes' Unique Features	*Recognize schedule challenges. *Build confidence in athletes' transferrable skills
	Personalization	*Provided 1-on-1 career coaching. *Ensure wants of athletes are met *Discourage major clustering
Athletic Department Buy-In	Repetition	*Begin career development programming from recruiting stage to the graduation stage
	Support	*Discuss the importance of career development with coaches to encourage buy-in
	Staffing and Resources	*Be articulate the importance of interprofessional teams and the need for more staffing

Research Question 2

RQ2 examined how administrators perceive that student-athlete career development services are received by athletes. Within their responses participants provided insight into the wide range of participation by student-athletes. Further, participants discussed their institutions viewpoint on mandatory versus recommended offerings. Ultimately, our analysis resulted in the following themes: 1) variability in student response, 2) lack of uniformity among requirements, and 3) the importance of past success.

Variability in Student-Athlete Response

Participants consistently mentioned the variability in student-athlete motivation to engage in career development. It is typical to have student-athletes who are more future focused while having other students who lack interest or are unable to see a career option other than being a professional athlete. One participant summarized this theme by stating the following:

> You have three tiers of athletes. You have that upper tier that knows what they want to do. They're engaged in all of the student development programming and they're attending and they're attentive because they understand that sport is going to end here really quickly, you have that middle section where you kind of like hit or miss. Some will go, some will kind of blow it off because of the hopes of what can happen in sport. And you have that lower tier where you really have to stay on them, keep pushing them, and keep pounding them for little time to get them to understand.

This varied response made it difficult for the participants to make a single recommendation that could be applied to most student-athletes.

Lack of Uniformity Among Requirements

When answering RQ2, many administrators addressed the difference between mandating and recommending services and programming. Such philosophies varied among institutions. Further, it was apparent that different approaches had been taken within each institution. It is difficult to generalize these approaches as best practice due to the variability of responses, but the variability suggests administrators struggle with the buy-in by student-athletes on some campuses.

A few administrators indicated their institutions were strict about requiring student-athlete attendance to their offerings because as one participant stated, "If we didn't require it, we would have like four or five people." The administrators felt it was important all athletes attended to receive the information.

A couple of the institutions primarily provided students with the freedom to decide if the career resources were applicable to them by offering a non-mandatory approach. One administrator shared:

> We have gone away from mandatory, but to recommend. We put it out there, 'Hey this is a business fair for jobs, and it is recommended.' Those student-athletes that come really want to be there. Those who do not come we pull them to the side and say that they are missing an opportunity that will help their career. Some get it. Some do not.

In the middle ground, some athletic departments implemented a mix of mandatory and recommended offerings. For example, one institution divided programming services onto different tracks. One track was required while the other included encouraged activities. This participant stated:

> We have the green track and a gold track. The green track is required. So, at the end of the day, we have about 10 buckets that we want to be essentially filled, or they've had those experiences when they graduate. And everybody shares that. And that's part of what it needs to be a goal. That's the green track. The gold track is that all the other things that we offer that are above and beyond, but we're not going to require you to do. We just hope that you do.

Importance of Past Success

Because student-athletes varied in their focus on career development, administrators recognized the importance of past success. One department asks former student-athletes who procrastinated and waited to focus on life after college to come back to campus and talk to current student-athletes:

> We use those student-athletes to come back to Summer Bridge to talk to student-athletes to tell them not to wait until their last year to get serious about your career. Focus on that first year. Focus on your sport. Focus on everything. Be a full complete student-athlete in that mindset.

Additionally, other institutions emphasized the value of upperclassmen sharing their experiences with career development to freshmen and sophomores:

> Word of mouth, having a successful event, having an event where, where the student athlete knows what they're getting going in, and they're getting it when they're walking out the door provides positive feedback in which they pass down to the sophomores and freshmen that are now coming up wanting to be a part of it.

Overall, responses revealed the complexity of engaging student-athletes in career development and the need for tailored approaches that consider individual motivations and institutional philosophies. RQ2 demonstrated that student-athlete motivation to attend career development events is varied, however, it is important to encourage student-athletes to share their positive experiences as this may impact future attendance.

Research Question 3

RQ3 aimed to define the attributes of successful student-athlete career personnel. The data analysis generated four themes: 1) diversity 2) innovative, 3) relatable to student-athletes, and 4) excellent communication.

Diversity

RQ3's first theme was diversity. Administrators in our sample were focused on building a team of employees that held an eclectic set of skills. One participant stated that their department likes to hire new employees that "have a skill that (we) don't have." This particular participant believed that hiring oneself repeatedly did not help

diversify the team's strengths. Thus, this particular school has made the conscious decision to implement hiring practices that added new skill sets to the department. Another participant reiterated this idea by saying they like to hire employees that "do not… think exactly like you, but also someone who understands your overall vision and wants to meet that overall vision." In other words, this participant illustrated that diversity of approach is important to have within a strong department, yet visions to the direction of the program must remain aligned to achieve success. Lastly, this theme was defined by its emphasis on diversity, equity, and inclusion (DEI) in the workplace. Many of our participants noted that their hiring practices usually contain some elements of DEI in terms of demographics. One administrator said that their program seeks to "find that balance of diversity, equity, and inclusion piece. That can be race, ethnicity, major, or career field." While another participant added:

> We're looking to be diverse in our staff in as many ways as possible so that we can mirror the student-athletes. It is also important to push ourselves to be comfortable with other people too, so we can be more well-rounded as a staff.

Innovative

The athletic administrators included in the study claimed that they seek adaptable employees. Further, these interviewees noted industry trends that require employees to possess greater knowledge of technology and social media. For example, one participant stated, "I'm going to hire somebody that is social media savvy. If they know how to work computer applications and programming, they can help." Participants also noted the importance of employees devising innovative ways to maximize the resources that their department has. One administrator stated that in order to maximize the resources that the program has to offer:

> We always need someone who is innovative. All student-athletes will not be the same. We will notice things are not working anymore and we will need to pivot to something else. It is always about pivoting. Hard work, [and] grit.

Another participant echoed this sentiment and stated, "if I'm not great at building an idea, (I need) somebody who can come in with a new idea and build it." Because so many of these programs are trying to maximize their resources, creative ways to adapt remain so important. This is especially true due to the fluctuation of schedules in college athletics and the tremendous demands on athlete's time. Lastly, participants emphasized that their work is never finished, and that innovation will always remain a key part of their roles.

Relatable to Student-Athletes

Relatability to the student-athlete was a key theme and an attribute that administrators target during the hiring process. Participants in this study reiterated the importance of engaging the student-athletes in discussions about their desired career development programming. Our participants reported that when student-athletes feel included in the discussion about career development programming, they are more

likely to attend events, workshops, and other career development programming. Administrators noted that many of their current employees are former student-athletes. One of the participants even noted that "ideally you want someone that was a student-athlete themselves." He went on to share that he believed that there are few non-student-athletes able to fully understand what it means to be a student-athlete. Despite many of the participants' preference for alumni and ex-student-athletes as new hires, they are open to non-student-athletes as well.

Relatability to the student-athlete also includes personnel that are engaging with their student-athletes. One administrator said that they look for, "You look for someone who you think will recruit student athletes to come to these things who is relatable." The participant went on to say that the job itself is very relationship driven and connecting with student-athletes helps build strong relationships. As the employee-student-athlete relationships grow in strength, attendance at workshops, networking nights, etc. tends to rise as well. Lastly, and most importantly, our interviewees stated that personnel who show a passion for helping student-athletes is the most important attribute. One interviewee is quoted saying "number one is I think the passion to really help people, I think to really try to find somebody who really cares about the wellbeing and the willingness to help student athletes."

Excellent Communication

Excellent communication is paramount for a strong employee in student-athlete career development. Communication with student-athletes is important to boost attendance. Student-athletes must know where and when career development programming will occur. Additionally, communication of what career development programming will occur is also important, so student-athletes feel their time is being utilized effectively. Another key group that student-athlete career development personnel must communicate with are industry professionals. Because industry professionals are so integral to the programming that is offered within student-athlete career development, personnel must build strong relationships with these individuals through strong communication. Industry professionals can provide opportunity to student-athletes in the form of internships, job shadowing, informational interviews, and more. Administrators note that their employees often act in the role of facilitator between student-athlete and industry professional. One participant stated: "But it's also working with corporations, it's working with the career center. So, it's got to be someone that has that communication skill and level of maturity and experience expertise in career readiness." This communication skill creates more opportunities for student-athletes in the long term and job placement is another metric of success for career development personnel. Lastly, participants noted that personnel who are detail-oriented and organized tend to excel in the roles within student-athlete career development.

Table 3
Recommended Practices for Hiring Student-Athlete Career Development Staff

Desired Attributes	Examples	Practical Application
Diversity	What skill set is the department missing?	*Conduct a SWOT analysis on your employees and hire to improve your weaknesses
	Shared mission, values, & goals	*Ensure future employees have the same vision for student-athlete outcomes
	Increase DEI	*Ensure that your staff represents a variety of races, ethnicities, genders, and industry experiences
Innovative	Adaptable	*Able to handle a variety of tasks on any given day
	Willing to take the initiative	*Willing to spend time connecting with industry and community leaders *Willing to create new and engaging career development opportunities for student-athletes
	Able to maximize resources	*Able to find creative solutions to budgetary or resource constraints
Relatable to Student-Athletes	Former student-athletes	*Hire former student-athletes who can relate to scheduling, workload, and life-balance challenges
	Able to connect with student-athletes	*Able to motivate and engage student-athletes in career development programming
	Passionate for helping student-athlete career development	*Willing to listen and provide thoughtful advice to help student-athletes navigate their future careers
Excellent Communication	Outgoing	*Possess networking skills to create contacts for student-athletes
	Able to communicate across populations	*Able to communicate with a wide range of stakeholders (e.g., sponsors, industry professionals, student-athletes, university personnel)
	Detail orientated/Effective	*Able to communicate the value of program offerings *Adequately provides information to ensure attendance and understanding of provided programming

In summary, successful student-athlete career personnel were described as individuals who were diverse in background and approach, demonstrated innovation and adaptability, were relatable to student-athletes, and exhibited excellent communication skills. These attributes collectively contributed to the effectiveness of career development programs in meeting the diverse needs of student-athletes.

Discussion

The purpose of this study was to gain the perspectives of senior administrators of student-athlete support services to determine best practices of career development programming. Through examining 3 research questions using a deductive approach, this work supports previous literature while uncovering new key areas of interest. The theoretical and practical implications are outlined below.

Theoretical Implications

Theoretically, this work examines student-athlete career development using a model of holistic care within sport management research. Previously, holistic care has been applied in the context of athletic trainers (Beasley et al., 2022a), sport chaplains (Beasley et al., 2022b) and mental health professionals (McHenry et al., 2022). The current study uses the model to explore student-athlete career development. Student-athlete career development remains an underfunded, yet extremely important part of the student-athlete experience. This paper echoes the call for increased opportunities and resources to be committed to student-athlete development (Coffin et al., 2021). Past sport management scholars have argued that the key to creating true holistic care is through the implementation of interprofessional teams (Beasley et al., 2022a, 2022b; Botelho et al., 2021; McHenry et al., 2022). The current study also extends this application of the concept of interprofessional teams to a new area of sport management, as we argue for student-athlete career development personnel to be considered a key component of a student-athlete's interprofessional team portfolio.

Holistic care models have identified the necessity for collaboration (Barkley et al, 2016), diverse offerings (Ventegodt et al., 2016), and athletic department buy-in (Waller et al., 2016). Further, Waller and colleagues (2016) identified five principles of collaborative care which should inform implementation: individualized care, population-based care, measurement-based treatment, evidence-based care, and accountable care. The findings across RQ1 and RQ2 demonstrate how holistic care is being implemented through student-athlete career development services, based on the perceptions of senior administrators of student-athlete support. In terms of what administrators perceive to be the best student-athlete career development programming practices at their respective schools (RQ1), participants echoed the call for collaboration (Barkley et al., 2018). Further, administrators recognized the need to provide diverse offerings which aligns with the concept of holistic care (Ventegodt et al., 2016). Participants demonstrated that athletic department resources and buy-in determined the implementation of career development services. Lastly, the principle of individualized care (Waller et al., 2016) materialized as participants recognized

the need to provide personalized, and at times one-on-one, care to student-athletes.

In terms of administrators' perceptions of student-athletes' reception of career development services (RQ2), the present study suggests that the principle of evidence-based care (Waller et a., 2016) is crucial to student-athlete career development, as athletes valued past success. Our findings did not suggest that other principles of collaborative care are being realized. For example, the findings suggest that student-athletes vary in their responsiveness. However, there did not appear to be a system for ensuring that athletes do not fall behind in their career development, which is in conflict with the principle of population-based care (Waller et al., 2016). A population-based care principle applied to this context would track and correct cases where the student-athletes are not participating in the career development programming. This could materialize through mandating attendance to workshops, career coaching sessions, etc. Lastly, across interviews there did not seem to be a system for holding senior administrators of student-athlete support and their personnel accountable, which does not uphold the principle of accountable care (Waller et al., 2016). Therefore, despite elements of holistic care being found in current student-athlete career development services, the present findings suggest that not all elements are being implemented. Because holistic care has been found crucial to the wellbeing of athletes (Beasley et al., 2022a; McHenry et al., 2022), more research should examine how student-athlete career development services could better implement all principles and elements of holistic care.

Although not based in the holistic care model, previous research on athletic department employee attributes (Bravo et al., 2013) is supported through the present findings. Specifically, communication was considered crucial in both studies. Further, Bravo and colleagues discerned that creativity was on the list of top-15 attributes which administrators believed that employees lacked. The call for innovative employees is similar to this finding. Lastly, Bravo et al. (2013) suggested that employers prefer employees with a sport background, which is similar to the current administrators preferring employees who are relatable to student-athletes.

Practical Implications

This study sought to provide practitioners with strategies to improve career development practices. Because most student-athletes will not build a career through their sport after graduation (McCormick & McCormick, 2012), it is vital for them to receive adequate academic support and career development throughout their college career. The conversations with the senior administrators of student-athlete support revealed that in terms of best practices it is imperative to collaborate, offer an array of offerings, understand your student-athletes needs and wants, and help cultivate athletics department buy-in to these services. One important takeaway from this work is that there was not a single service that each institution offered in the exact same way. Therefore, it is important for career development personnel to consider the above-mentioned strategies but find the best way to implement such services within their institution.

The most notable way in which there was a lack of uniformity was in con-

sidering if athletic departments should mandate or simply encourage career service offerings. Some student-athletes may prioritize sports over long-term academic or career goals, leading to a lack of focus on academic and career preparedness until later in their collegiate experience. It is expected that student-athletes will show a wide range of interest in the services, and it is vital to engage those who may be less motivated to consider the future. One way to do this is through using the transition experiences of past student-athletes as examples for current student-athletes. By leveraging the experiences of past student-athletes, student-athlete support centers can create a more nuanced, empathetic, and tailored approach to guiding current student-athletes through their academic and career transitions. The use of real-world examples provides practical insights and helps bridge the gap between the athletic and professional aspects of their lives.

Previously, scholars have encouraged student-athlete career development programs to offer HIPs like First-Year Seminars, Internships, Learning Communities, Service Learning and Community-Based Learning to foster stronger career preparedness for student-athletes (American Association of Colleges and Universities, 2023; Navarro & McCormick, 2017). Based on the current study's interview data, many of these practices are currently in use, but require continued investment.

This study also provides insight into the qualities that Division I career personnel should possess to be effective in their job. These qualities include being innovative, an excellent communicator, being relatable to the student-athletes, and fitting within the athletic department. Those who would like to work within career development should highlight these skills. For the administrators responsible for the department's hiring process, these insights can inform the development of specific and relevant criteria for hiring athletic career personnel in Division I athletic programs. Hiring managers can use these qualities as benchmarks to make more informed decisions when selecting candidates. Furthermore, recognizing the need for diverse skillsets, institutions can actively seek career personnel who bring varied experiences, backgrounds, and perspectives. This promotes an inclusive environment and ensures that the career team can effectively support the diverse needs of student-athletes. While recognizing that the qualities needed for success may evolve, institutions can encourage career personnel to embrace continuous improvement.

Limitations and Future Research

This research is not without limitations. Division I Football Bowl Subdivision schools were the focus of the study, so future researchers should evaluate similar principles at the other levels of college sport (e.g., Division I Football Championship Subdivision, Division II, Division III) to discern if different academic philosophies persist. The study may not fully account for the variability in resources, structures, and priorities among different institutions, which can impact the implementation of career development programs. In-depth case studies of individual institutions or athletic programs could provide nuanced insights into the specific strategies and practices that contribute to successful career development outcomes. Though it was not

a theme nor a focus of this study, COVID-19's impact on the student-athlete career development could be an important area of inquiry for future work. Similarly, investigating the integration of technology and digital platforms in career development programs could shed light on how innovative tools impact student-athlete engagement and outcomes. It is imperative for HIPs to continue to be evaluated to best help student-athletes thrive. Furthermore, the perspectives of other key stakeholders (e.g., student-athletes, coaches, other administration, or industry professionals) should be examined. Additionally, research exploring career development in international student-athlete contexts could offer insights into the unique challenges and opportunities faced by athletes in different global settings. Finally, a quantitative instrument should be developed to provide a uniform measurement tool to evaluate career development HIPs across the NCAA's member institutions.

Conclusion

We investigated current practices within student-athlete career development at NCAA Division I member institutions through the lens of the student-athlete development directors of NCAA D-I athletic programs. The research team identified 11 themes to summarize the data. Through these themes, we made several recommendations to current career development personnel. These recommendations include, but are not limited to, providing diverse career development offerings to student-athletes (e.g., internships, job shadowing), collaborating/connecting with community members and stakeholders (e.g., alumni, local business owners), and personalizing the career development experience (e.g., 1-on-1 coaching, discourage major clustering). Additionally, administrators provided context to hiring strategies for student-athlete career development program staff. Our work provides theoretical and practical implications that argue for further investment of resources into student-athletes' career development. This investment will lead to a stronger, more confident group of graduates that will be prepared to thrive in their professional lives after sport.

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