Block and Tackle or Interfere: Student-Athletes Identities & Well-Being

by

Jorge Ballesteros

A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved April 2021 by the
Graduate Supervisory Committee:

Cristalis Capielo Rosario, Chair
Lindsey Buckman
Lindsey Blom

ARIZONA STATE UNIVERSITY

August 2022

ABSTRACT

Athletic and academic identities among college student-athletes have been identified as important determinants of their academic achievement, career preparation, and sport termination. However, less is known about how these two identities, independently or simultaneously may be related to student-athletes' overall (e.g., levels of optimism and happiness) or sport-wellbeing (e.g., satisfaction with one's sport performance). To this end, the purpose of the study was to examine how student-athletes' academic and athletic identities are associated with their overall and sport well-being in a U.S. national sample of 241 Division I student-athletes. I also examined whether the relationship between these two identities and well-being would be moderated by the student-athletes' year in school, gender, or race. Because this study took place during the second wave of the COVID-19 pandemic (Summer of 2020), I also explored whether interruptions to school and sport activities due to the pandemic would also affect student-athletes reported overall and sport well-being. Results showed a significant positive relationship between academic identity and overall well-being, and a negative relationship between athletic identity and sport well-being. Additionally, year in school and race were significant correlates of sport well-being, with lowerclassmen student-athletes (first- and second-year students) and White student-athletes reporting higher levels of sport well-being than their counterparts. Race and gender were also significant predictors of overall well-being. Specifically, male student-athletes and White student-athletes reported higher levels of overall well-being than student-athletes identifying as female or as a person of color. Finally, results also indicated that COVID-19 were negatively associated with participants' overall and sport well-being. However, the

relationship between academic nor athletic identity and well-being (i.e., overall, sport well-being) were not moderated by self-reported rage, gender, year in school, or COVID-19 interruptions. After a review of the current literature and its limitations, findings and implications for practice with student-athletes are discussed.

ACKNOWLEDGMENTS

First and foremost, I would like to give thanks to my committee members, Dr. Lindsey Blom, Dr. Cristalis Capielo Rosario, and Dr. Lindsey Buckman!. It has been an interesting journey to complete this project, but we have made it! I also want to give special thanks to all the student-athletes who completed my survey!!

Furthermore, I want to give a 1000x THANK YOU's to everyone who has supported me during my time as a student, especially during my doctoral work! In no particular order, shout out to some of my closest friends Tom Gretton, Juan Lomeli, Fabian Mendoza, George Barrios, Andy Walsh, Amber Craft, Amber Schaefer, Paul Hernandez, Kai Kline, Byanca Rodriguez, Jorge Villela, and Nat Ordaz for always supporting me and showing love! Additionally, I am forever grateful for my parents who provided me with the love and support I needed from afar to make it to this point! Moreover, I want to thank the mentors who put me in this prime position, I am extremely thankful for Dr. Lindsey Blom, Dr. Steven Smith, Dr. Cristalis Capielo, Dr. James Bludworth, and Dr. Kristin Goto for helping me along this wild journey! Lastly, I want to acknowledge the journey itself; to graduate school I would like to say thank you for helping me grow, for challenging me, and for making me a better person!

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TABLE OF CONTENTS

CHAPTER Page

APPENDIX Page

LIST OF TABLES

Table Page

CHAPTER 1

INTRODUCTION

Over 460,000 student-athletes compete within the National Collegiate Athletic Association across 24 different sports (NCAA, 2019). The NCAA defines student-athlete as a student who participates in an organized competitive sport sponsored by the educational institution where the student is enrolled (NCAA, 2019). Student-athletes can compete across three competitive levels in the NCAA, Division I to Division III. Division I in comparison to the other division levels is the most competitive, most televised, and has the highest number of student-athletes. Division I student-athletes must meet stringent academic standards including, minimum grade point averages, minimum credit hours per year, and annual progress toward a degree (Hamlin et al., 2019).

The rigorous academic and athletic requirements student-athletes commit to during their collegiate careers may impact their well-being. For example, student-athletes report often feeling overworked and undervalued as they try managing responsibilities and requirements in their sport and their classes (Ting, 2009). Available data also suggests student-athletes may be at risk of experiencing sleep disturbances, substance use problems, and depressive symptoms (Barry et al., 2015; Krohus & Davoren, 2016; Mah et al., 2018; Weigand et al., 2013). Furthermore, the number of sport and academic responsibilities student-athletes manage has also been negatively associated with their overall functioning and athletic performance (Gomez et al., 2018; Neal et al., 2013). In recognition of this vulnerability, in 2017 the NCAA Multidisciplinary Taskforce created best practices for mental health that could be adopted by institutions to help prevent and ameliorate psychological distress among student-athletes. The taskforce

recommendations, however, primarily focus on how to best prevent distress associated with their responsibilities as an athlete and do not detail how demands related to their academic identity can also have a negative effect on their psychological well-being. Thus, it is important to understand how both identities relate to a student-athletes' well-being. Identity Theory (IT; Stryker, 1968) provides a framework to examine the ways in which social identities affect individuals functioning. Informed by IT (Stryker, 1968), the current study advances the literature on student-athletes well-being by evaluating the associations between academic and athletic identities, individually and simultaneously, in relation to well-being (i.e., overall and sport well-being). Because student-athletes' gender, year in school, and race have also been previously identified as important correlates of their academic and athletic performance, I also examined how the strength of the association between academic and athletic identities and well-being varied as a function of other co-occurring static and fluid roles (e.g., race, gender, year in school).

STATEMENT OF THE PROBLEM

Beyond balancing their roles as athletes and students (e.g., attending classes, games, and practice), life as a student-athlete requires successfully managing the pressures of academia and sport and the demands to perform well within both arenas (Hyatt, 2003). This balancing act can become problematic. For example, Division I student-athletes report allocating over 34 hours a week to only sports-related activities (Van Rheenen, 2011). This over-commitment to sport may prevent student-athletes from dedicating the time required to maintain adequate academic performance and other responsibilities (e.g., maintaining social relationships) (Routon & Walker, 2015). The difficulties associated with having to meet, what are often competing demands, can in

turn lead to physical and mental strain among student-athletes. However, much of the research on this population, has examined academic and athletic identities independently. That is, only examining the relationship between one of these two identities and some other performance outcomes, without consideration to how the other identity may also influence the outcome. Moreover, the few studies that have examined athletic and academic identities simultaneously have yielded mixed findings, with some studies reporting an association between these two identities and well-being (e.g., Yukhymenko–Lescroart, 2014; 2018) and others not finding a significant association between athletic identity, academic identity, and well-being (e.g., van Rens et al., 2019). Another limitation in the current literature, is the lack of attention to how other important social identities (e.g., gender, race) could moderate the association between academic, athletic identities and well-being. Instead, much of the literature has focused on the relationships between these individual-level identities, academic, and/or athletic identity. Because IT argues that social identities may work on each other to influence well-being, it is vital to examine and understand the ways in which these variables independently and in conjunction relate to student-athletes' well-being. Accordingly, the current study extends the literature on student-athletes by also investigating how gender, race, and year in school affect the strength of the relationship between academic identity, athletic identity, and wellbeing. Understanding student-athletes' multiple identities and the way they are linked to their sport and overall well-being can provide important practical information for mental health, performance, and athletic personnel working with this special population.

CHAPTER 2

LITERATURE REVIEW

In this chapter, I review academic and athletic identity in the context of identity theory among student-athletes. I highlight the limitations of past studies exploring academic identity. I also identify and discuss different factors associated with both academic and athletic identity. Lastly, I discuss the ways both academic and athletic identities impact both overall and sport wellbeing.

Identity Theory

Student-athletes maneuver through different roles and identities in their collegiate careers. Two major identities student-athletes manage are their academic and athletic identities. Both identities take time and effort in fulfilling and executing. In the current study, I drew on Identity Theory (IT; Stryker, 1968) to investigate how these identities influence student-athletes' well-being. Although the term identity has been defined in multiple ways, for the purpose of this study, identity is defined as the distinguishing character that individuals create for themselves when occupying specific social positions (McMall & Simmons, 1966). Although multiple theories have been suggested to understand identity and identity development, IT (Stryker, 1968) has received much empirical attention because it provides a framework for investigating how multiple identities are negotiated, managed, and affect a person's functioning and well-being (Stets & Serpe, 2013; Stryker & Burke, 2000). According to IT, the main aspect of an identity is self-categorizing oneself as an occupant of such identity and the identity's related roles, meanings, expectations, and behaviors (Burke and Tully 1977; Stets & Burke, 2000; Thoits 1986). Explained differently, if an individual identifies as an athlete,

they will engage in behaviors and adopt attitudes that align with that role. Identity theorists also argue that individuals can simultaneously occupy various social identities throughout their lives. These identities are believed to influence how individuals perceive themselves and their roles within each specific identity (Schwartz, Vignoles, & Luyckx, 2011). According to IT, social identities should also be understood along three components: identity salience, identity commitment, and identity prominence. Identity salience refers to how significant an identity is to the individual (Stets & Burke, 2000). Commitment on the other hand, refers to the degree to which people feel connected to a particular identity (Stets & Serpe, 2013). Lastly, identity prominence is defined as the individual's subjective sense of the worth or value an identity has for them (Ervin & Stryker, 2001). Because most of the literature on IT, has focused on identity salience and prominence, my literature primarily discusses these two components. Likewise, although in this study I examined academic and athletic identity using the more global definition of identity, student-athletes' self-categorization and distinct character as a student and an athlete settings, it is important to have a full picture of the theory that guided my study.

One of the prominent features of IT, is identity salience, which refers to the predisposition to define a situation in a way that provides an opportunity to perform the identity (Stryker & Serpe, 1982). Identity saliency is believed to be situation specific. For example, a student-athlete's academic identity may be stronger or more salient when they are engaged in school tasks. Identity salience is believed to influence an individual's commitment to the identity (Hoelter, 1983). For example, in a study that asked college students to read a prompt about comprehensive exams, researchers observed that their commitment to their student identity was significantly higher than their national identity

after completing the reading task (Maitner et al., 2010). According to IT, the stronger the commitment, the more salient the identity will be (Curry & Weaner, 1987). Saliency can in turn influence the likelihood that an identity will be performed and/or define a situation. For example, among student-athletes, their athletic identity can define a sport specific situation. However, salience follows a hierarchy where more important identities have higher saliency than less important identities (Brenner, Serpe, & Stryker, 2014). Specific to student-athletes, identity salience could help explain which identity is adopted and used depending on a situation.

The second domain, identity prominence, can be described as how important an identity is to the individual (Pope & Hall, 2015). Across the literature, prominence and salience have been used interchangeably, yet the concepts are distinct and measure different components. Prominence refers to the feelings and attitudes the individual has towards their identities. Additionally, an identity's position in the prominence hierarchy need not necessarily align with the position of the identity in the salience hierarchy (Ervin & Stryker, 2001). Identity saliency and prominence are also believed to work in concert. Prominence of the identity is also thought to inform how frequently and consistently the individual will seek to express this identity in social interactions or situations (Stryker 1968, 2004). That is, if an identity is highly valued (prominence), the identity is more likely to be enacted (salience). However, a highly salient identity is not necessarily one that the individual wishes or desires to perform (Brenner et al., 2014). For example, student-athletes may wish to tap into their academic identity, yet their athletic identity may surface because of how often it is used. In contrast, prominence reflects the ideal self and is defined as the subjective value or worth to persons of a given identity relative to

that of other identities: the valence of the focal identity relative to that of other identities. Researchers have found that across time identity prominence precedes identity salience among college students (Brenner et al., 2014).

As student-athletes can simultaneously and independently identify as a student and an athlete, IT could help explain how student-athletes identify and develop simultaneous and independent academic and athletic identities. The tenants and assumptions of IT could also help frame how student-athletes identify and these two identities may impact their well-being. However, the applicability of IT to help explore student-athletes' identities and functioning has not been systematically evaluated in this community. However, there is some support for the association between social identities and sport outcomes among student-athletes. In Yukhymenko-Lescroat (2018), results showed that the strength of academic identity helped predict positive ethical sports conduct among Division I student-athletes. Although the study referenced makes important contributions to the student-athlete identity literature, more information is needed to account for the way student-athletes' social identities may also affect psychological outcomes. Thus, to better understand the ways in which the social identities of student-athletes affect their academic and athletic functioning, it is vital to concurrently investigate both their role as an athlete and as a student and the ways these identities impact their overall health and well-being.

Athletic Identity

Athletic identity (AI) has been extensively investigated in sport psychology literature and across different levels of sport competition. Athletic identity was first coined in 1993 and refers to the degree to which an individual identifies with the athlete

role (Brewer et al., 1993). This identity has been identified as an important correlate of sport performance. To illustrate, in the study conducted by Brewer and colleagues, results demonstrated that holding a strong athletic identity was positively associated with satisfaction within sport and having positive relationship with teammates. Similarly, Horton and Mack (2000) reported that high levels of athletic identity were associated with improvements in athletic performance. These findings suggest that athletic identity facilitates athletic functioning perhaps because a strong athletic identity is expected to be accompanied by behaviors that align with the identity (e.g., practicing more, higher investment in sport). The literature also highlights a similar relationship between athletic identity and academic performance among student-athletes (Harrison et al., 2009). Likewise, among a sample of former and non-student-athletes, athletic identity was a positive predictor of physical activity, and this relationship was stronger for alumni who had participated in college athletics (Anderson, 2004; Reifsteck, Gill, & Brooks, 2013). Together, these studies showcase how athletic identity can have a positive effect on student-athletes even after retiring from their sport.

On the other hand, athletic identity among student-athletes has also been linked to adverse outcomes (O'Brien, 2012). For example, athletic identity has been identified as a correlate of emotional difficulties, when student-athletes are facing retirement from sport (Podlog et al., 2013). Additionally, Downs and Ashton (2011) found that high levels of athletic identity were correlated with worse physical health among student-athletes. Furthermore, strong athletic identity has been linked with an increase in alcohol consumption among student-athletes (Zhou et al., 2015). Among long distance runners, those with strong athletic identities were also more likely to report higher rates of harmful

behaviors, such as compulsive exercising (Turton et al., 2017). Similarly, other studies have found high levels of athletic identity were correlated with lower personal-emotional adjustment among student-athletes (Melendez, 2009). Researchers have also observed that student-athletes with strong athletic identities have more difficulties transitioning out of their sport at the end of their careers than those with lesser levels of athletic identity (Alfermann et al., 2004; Bimper & Harrison, 2011). High prominence of athletic identity among some student-athletes could help explain why they may experience issues when trying to switch to a life away from athletics. Put together, these studies suggest that while athletic identity may have a positive role in student-athletes' sport performance, it also may be a risk factor for harmful behaviors and psychological distress. To help clarify these associations, the current study examined both sport and psychological well-being in relationship to athletic identity.

Academic Identity

Most of the research on student-athletes has focused on their athletic identity and less attention has been given to aspects of student-athletes' academic identity. In one of the few studies conducted on academic identity in this population, Sturm and colleagues (2011) measured athletic and academic identities across division levels in collegiate athletics. Researchers found that male student athletes reported higher levels of athletic identity and lower academic identity, compared to female student-athletes. Although there is a scarcity of studies examining the potential impact academic identity has among collegiate athletes, some studies have investigated the influence of academic identity on various outcomes among similar age groups. Research on non-student athlete populations has shown that academic identity is positively associated with academic outcomes. For

example, performance, motivation, and persistence in academic settings (Guay, Larose, & Boivin, 2004; Osborne & Jones, 2011).

Although these studies provide some support for the importance academic identity has on academic performance, this relationship remains mostly empirically unexamined. Moreover, while IT argues that identities influence each other, the existing literature treats academic and athletic identities as orthogonal even though these two appear to be related (Bimper & Harrison, 2011). The lack of attention given to simultaneously assessing academic and athletic identities among college student-athletes limits our ability to know which one is used depending on the situation and the way each identity is associated with outcomes such as well-being.

Relationship between Athletic and Academic identities

While few studies have exclusively examined academic identity among student-athletes, other studies have investigated the association between academic and athletic identities on this population. Researchers have also suggested that athletic and academic identities may be inversely related. To illustrate, among racial minority student-athletes, researchers have observed that having a strong athletic identity was negatively correlated with academic achievement (Bimper & Harrison, 2011). Using a qualitative methodology, Ryba et al. (2017) also noted that student-athletes often talked about the challenges of trying to manage between training hours, travel time, and hours spent during competition, and that time limitations were in turn related to difficulties in completing schoolwork. This conflict between academic and athletic roles had also been documented by previous work (e.g., Adler & Adler, 1991; Meyer, 1990; Miller & Kerr, 2002). To illustrate, when exploring these dual identities among women student-athletes,

Meyer (1990), noticed that these athletes often had to focus on academic responsibilities than on athletic demands because they felt pressured by others to perform well academically. More recently, Lally and Kerr (2005) found that depending on the primary role in which student-athletes invest time and effort into, one dimension of the athlete/student dyad may become preferred over the other. Additionally, student-athletes recalled making overt efforts to be identified as athletes by those in their social circles. These student-athletes disclosed that the student role was negligible in their self-perceptions during their early university careers (Lally & Kerr, 2005), providing further evidence of the difficult of maintaining a balance between these prevalent roles.

As researchers have come to understand the relationship between academic and athletic identities among student-athletes, there is an increased interest in investigating the way these individuals could possibly experience conflict when navigating these two identities. More recently, division level of athletic competition, has been examined as a moderator of academic and athletic identities (Yukhymenko-Lescroart, 2014). In Yukhymenko-Lescroar (2014), results indicated that Division I varsity student-athletes reported weaker levels of academic identity and stronger levels of athletic identity than their club-sport counterparts. The findings suggested that athletic identity among Division I student-athletes appears to have higher prominence and salience over other identities. Later, the same author expanded on his research and explored academic achievement goals among student-athletes. In his 2018 study, Yukhymenko-Lescroart found student-athletes who strongly identify themselves as students also endorsed better mastery and performance on academic achievement goals. This finding provides evidence for the positive association between academic identity and academic outcomes.

However, in the studies mentioned, the researchers did not measure the ways that each identity interacted with each other and were only a steppingstone to explore possible relationships between identities and other factors. Therefore, it is vital in the proposed study, to capture both academic and athletic identities of participants and start to discern important student-athlete outcomes related to holding these two large roles.

Correlates of Academic and Athletic Identities

Year in School

Year in school, defined as the academic year a student is enrolled in, has been correlated with student-athletes' athletic identity (Houle et al., 2010; Lally & Keer, 2005; Miller & Kerr, 2002). Throughout the study I define upperclassmen student-athletes as those who are in their third year or higher. On the other hand, underclassmen are student-athletes in their first two years of college. Furthermore, student-athletes who are earlier in their college careers endorse stronger athletic identity than those in their later careers (Chen, Synder, & Magner, 2010). Aspirations for an athletic career and athletic self-efficacy is also believed to be stronger in younger student-athlete populations (Woodruff & Schallert, 2008). Similarly, Fountain and Finley (2011) argued that a significant number of student-athletes base their career aspirations on the belief their athletic careers will continue into the professional ranks.

Academic identity may also change in relation to year-in-school. In Lally and Keer (2005), researchers observed that student-athletes' academic identity became as important as their athletic identity as they progressed through their time in school. A similar dynamic was observed in a sample of Canadian student-athletes, when these studies discussed shifting their attention to school activities and interests as they grew

older in their academic careers (Miller & Kerr, 2002). However, year in school is not a consistent determinant of academic and athletic identity in student-athletes. In a recent study of athletic identity using a U.S. nationwide student-athlete sample, year-in-school was not significantly related to either athletic or academic identity (Huml et al., 2019). Possible explanations for inconsistency findings can range from the variability across populations sampled and differences in expectations for student-athletes based in the country they attend school in. Therefore, studies that further examine the relationship between year in school and athletic and academic identities are warranted. Informed by this research, the current study adds to the literature in the area, by examining how the relationship between academic identity, athletic identity, and well-being may be dependent on student-athletes' year in school.

Race

Racial identification (e.g., identifying as Black or African American) has also been investigated as a correlate and moderator of athletic identity among student-athletes. To illustrate, studies have found that self-identified racial minority athletes report higher levels of athletic identity compared to their White counterparts (Bimper & Harrison, 2011; Chee, Pino, & Smith, 2005; Harrison, Sales, Rotich, & Bimper, 2013; Killeya, 2001). In Harrison and colleagues (2013), they found that among collegiate football players, African American student-athletes endorsed higher athletic identity than White football players. The same study reported that compared to White football student-athletes, African American student-athletes reported being more focused on their sport and that playing in their sport was a more significant aspect of their lives. However, the relationship between race and athletic identity is inconsistent. For example, findings by

Brewer et al. (1999) and Melendez (2009) showed that White student-athletes endorsed stronger athletic identities than the racial minority reference group. Other studies, have not found significant differences in athletic identity across race (Traynomicz, Harrison, McPherson, Bukstein, & Lawrence, 2016). For instance, in a study of female student-athletes, Wu (2013), did not find a significant difference between African American and White female student-athletes on their endorsement of athletic identity. Equivocal results may be the result of sampling methodology. In the studies aforementioned, only African American and White student-athletes are included. Therefore, while the studies provide valuable information, it is unclear what role if any, racial identification may have on the level of academic and athletic identity in more racially diverse samples. The proposed study will address this limitation by having recruitment be open to any self-identified racial minority student-athlete.

Gender

Along with year in school and race of student-athletes, the gender of student-athletes has been investigated as a correlate of athletic identity in this population. The available literature shows that in general, self-identified male student-athletes report a higher athletic identity than female student-athletes (Brewer et al., 1993; Melendez, 2009; Miller & kerr, 2005; Murray, 2001; Sturm et al., 2011). According to Parker (1994), gender differences could be associated with males perceiving their athletic participation as a career rather than a hobby. This perception may in turn lead male athletes to believe that it is more important to spend time in athletic activities than on academic tasks (Parker, 1994). However, gender differences could be better explained by differences in access to professional athletic careers (Senne, 2016). That is, because systemically male

athletes have more chances to pursue professional athletic careers after college than female athletes, access differences may lead male students to allocate more time for athletics not because of inherent gender differences in athletic ability but on availability of professional athletic opportunities. Yet, there are some studies, which show no difference across genders related to athletic identity (Mignano et al., 2006). Thus, while gender may be a more distal correlate of academic and athletic identities, it is still important to investigate this factor as it could add clarity on student-athletes navigating between two salient identities.

Academic identity, Athletic identity, and Well-being

Overall well-being

In considering the duality of academic and athlete roles, researchers have started to examine the effect this can have on student-athletes well-being (Ivarsson, et al., 2015; van Rens, Ashley, & Steele, 2019). Well-being is comprised of two distinct but related components, affect and cognitive evaluation (Diener & Fujita, 1995). Affect refers to short-lived emotional components of well-being, while life satisfaction is an example of an individuals' longer lasting cognitive appraisal of their overall quality of life (Veenhoven, 1996). In looking outside of the sports realm, in the general population, the development of a multidimensional identity has been positively associated with a number of self-reported measures of well-being, including happiness and life satisfaction (Smith & Silva, 2011), and positive affect (Iyer, Jetten, Postmes, & Haslam, 2009). People whose identities facilitated each other demonstrate a higher psychological well-being than those whose identities conflict with each other (Brook, Garcia, & Fleming, 2008). Specific to student-athletes or athletes in general, research investigating the associations

among multiple identities and well-being is limited (Yukhymenko– Lescroart, 2014). Results from the scarce research looking at the associations between athletic identity and athletes' wellbeing are inconclusive. In a sample of Australian athletes, Martin and colleagues (2014) noted that athletic identity was negatively associated with the well-being of participants. On the other hand, research conducted among junior elite athletes in the Netherlands, investigators found no significant association between athletic identity and well-being (Verkooijen, van Hove, & Dik, 2012). Consistent with Verkooijen and colleagues (2012), van Rens et al. (2019) found that among Australian student-athletes, athletic identity was not associated with student-athletes' well-being. Although the information from the studies is valuable, the focus on non-collegiate settings and in countries outside the United States limits our ability to generalize these results. Thus, in the proposed study I address this shortcoming by investigating the association between academic identity, athletic identity, and overall well-being using a U.S. student-athlete sample.

Sport well-being

A newer concept in the student-athlete wellbeing literature is sport well-being, defined as the welfare or satisfaction of an athlete in their sport (Foster & Chow, 2019). Much of the literature has split well-being within psychological, subjective, and social realms. Therefore, psychological well-being among student-athletes has encapsulated behaviors such as goal achievement (Smith, Smoll, & Cumming, 2009) and emotion regulation (Gross & John, 2003). Subjective wellbeing has been explored through athletes' internal motivation and surrounding athletic environment (Blanchard, Amiot, Perreault, Vallerand, & Provencher, 2009). Similarly, social well-being is largely a result

of one's perceived social support, often derived from team members in a sport setting (Inoue, Funk, Wann, Yoshida, & Nakazawa, 2015). Yet, none of these three concepts get at the core of how well-being is demonstrated and showcased in student-athletes and subsequently how it is associated with overall well-being. Due to this shortcoming, examples of indicators that have been used to measure sport well-being have included self-esteem (Adie, Duda, & Ntoumanis, 2008), subjective vitality (Gagné, 2003), and positive and negative affect (Smith, Ntoumanis, & Duda, 2010). More recently, researchers noticed the gap in measuring sport well-being, therefore they created the Sport Mental Health Continuum, which captures athletes sport well-being (Foster & Chow, 2019). As athletes spent an abundance of time in athletics, it is imperative to capture the way they feel and think in relation to their sport. Therefore, expanding well-being to encapsulate sport specific nuances seems important in possibly shifting or being associated with two of student-athletes most resonating identities (athletic, academic).

The COVID-19 Pandemic and Student-Athletes Well-being

The current study took place during the second wave (Summer of 2020) of the novel coronavirus SARS-CoV-2 pandemic, from this point on referred to as COVID-19, in the United States. COVID-19 is a highly contagious respiratory disease that may cause mild or severe symptoms, including death. The virus is believed to spread from person to person through droplets released when an infected person coughs, sneezes, or talks (Fauci et al., 2020). Because the virus is highly contagious, one of the main ways to combat the spread of the virus is for individuals to practice social distancing (e.g., quarantining when believed to be infected, stay at home to avoid contact with those infected). Additionally, private and public institutions across the United States also enacted strict restrictions on

events and gatherings in order to mitigate the spread of COVID-19 (e.g., school closures, working from home policies). Because of the length of the COVID-19 pandemic, prolonged home-confinements, along with the stress of becoming sick or risk of becoming sick has been associated with worse psychological concerns. For example, a recent study showed that a high number of Americans reported experiencing more stress, depression symptoms, irritability, and insomnia during the pandemic (Pfefferbaum & North, 2020). The COVID-19 pandemic has also presented similar challenges for student-athletes. At the start of the pandemic, all student-athlete sport activities as well as many in-person classes were suspended. Although data on the effect of COVID-19 related disruptions on student-athletes' lives is still emerging, researchers are beginning to identify the negative impact the pandemic has had on student-athletes and their training (Andreato et al., 2020). Additionally, Senisik et al. (2020) reported that compared to non-student-athletes, student-athletes reported higher levels of mental distress during and after the pandemic (Senisik et al., 2020). Given this data, I also evaluated the possible impact of COVID-19 interruptions on the well-being of student-athletes.

Purpose of the Study

Informed by the literature discussed, the current study had three primary aims: first, I examined the association between athletic and academic identity on both overall and sport well-being. Secondly, I investigated the association between year in school, gender, and race and student-athletes' academic and athletic identities and whether these correlates would affect the relationship between academic identity, athletic identity, overall well-being, and sport well-being. Finally, I also examined the association between

COVID-19 related interruptions and student-athletes' overall and sport well-being. Understanding correlates of student-athletes' academic and athletic identities can have important implications for the practice of sport consultation and psychology. Additionally, if results show that this association varies as a function of demographic factors, health professionals can create more specific outreach efforts to target subgroups at risk. Moreover, with much of the past literature focusing on athletic identity, the proposed study will address past limitations, as both athletic and academic identity will be examined simultaneously and in relation to each other while sport well-being being is explored.

Research Questions & Hypothesis

Using a sample of Division I student-athletes the following questions and hypotheses will be tested.

- Is athletic identity associated with overall and sport well-being?
    - H1- Athletic identity will negatively predict overall well-being and positively predict sport well-being.
- Is academic identity associated with overall and sport well-being?
    - Academic identity will predict a positive relationship with overall well-being and a negative association with sport well-being.
- Does the strength in relationship between athletic identity and overall/sport well-being dependent on year in school, gender, and race?
    - Compared to White athletes, racial minorities athletes will report higher levels of sport well-being and lower overall well-being.

    - Compared to female athletes, male athletes will endorse higher levels of sport well-being and lower overall well-being.
    - Compared to upperclassmen, lowerclassmen will report higher levels of sport well-being and lower levels of overall well-being.
- Does the strength in relationship between academic identity and overall/sport well-being dependent on year in school, race, and gender?
    - Compared to racial minority athletes, White athletes will report higher levels of overall well-being and lower levels of sport well-being.
    - Compared to male athletes, female athletes will endorse higher levels of overall well-being and lower levels of sport well-being.
    - Compared to lowerclassmen, upperclassmen will reports higher levels of overall well-being and lower levels of sport well-being.
- Does academic identity, moderate the relationship between athletic identity and well-being?
    - As this has not been examined in the past, no hypothesis was created for this question and this question is exploratory in nature.
- Does the strength in relationship between academic identity/athletic identity and overall/sport well-being dependent on the COVID-19 pandemic?
    - As there is a dearth of literature on COVID-19, no hypothesis was created for this question.

CHAPTER 3
METHOD

This study aimed to examine student-athletes academic and athletic identities, specifically how these two identities are associated with student-athletes overall and sport well-being. In this chapter, I will discuss the sample recruited, the instruments that were used to assess study variables, and the analysis I ran to examine our research questions and hypotheses.

Participants

The participants in the study were 241 Division I collegiate student-athletes (male = 62; female = 179) ranging in age from 18-24 years (M= 19.96, SD = 2.15). Of the 241 participants, (n = 174; 70%) identified as White and 30% (n =41) identified as a person of color (e.g., Black, Latinx, Asian American). About three quarters of the sample (71%) were on at least partial athletic scholarships (n = 170). Almost half, (47%) of student-athletes recruited were not aware of the type of institution they were attending (i.e., HBCU, PWI). Table 1 (see appendix G) details the different sports student-athletes participated in, swimming and cross country were the two highest populated sports within the sample. As shown on Table 2, there was good representation of all years in school within the sample. Lastly, Table 3 represents the distribution of time student-athletes indicated they spent in both academic and athletic related activities.

Measures

Demographics questionnaire.

Participants were asked to complete a demographics questionnaire (see Appendix A), which asked participants to provide information about their age, gender, year in

school (e.g., first year, second year), major in school, grade point average, and number of hours spent on academic activities. Other questions were sport specific such as type of sport(s) student-athletes are currently competing in, number of hours they spend in sports related activities, and scholarship status.

Athletic Identity

To assess athletic identity, I used the Athletic Identity Measurement Scale (AIMS; Brewer et al., 1993; see Appendix B), a 7-item scale created to evaluate the extent to which an individual identifies as an athlete. The 7 items are subdivided within three dimensions: social identity (items 1, 2 and 3; e.g., "I consider myself to be an athlete"), exclusivity (items 4, 5; e.g., "Sport is the most important part of my life"), and negative affectivity (items 6, 7; e.g., "I feel bad for myself when I do poorly in my sport") (Brewer & Cornelius, 2001). Each item consists of a 7-point Likert scale ranging from 1 (*completely disagree*) to 7 (*strongly agree*). Although, the creators describe three dimensions, an overall summed score is created for each participant. Scores can range from 7 to 49, with higher scores indicating stronger athletic identity. Previous studies using the AIMS with student-athlete populations have reported Cronbach' alpha ranging from .81 (Houle & Kluck, 2015) to .86 (Bimper, 2014). In the current study, the Cronbach's alphas for the AIMS was (α =.74).

Academic Identity

To assess academic identity among participants, I used the academic identity subscale of the Academic and Athletic Identity Scale (AAIS; Yukhymenko-Lescroart, 2014; see Appendix C). This subscale consists of 5 items that help measure the extent to which an individual identifies as a student (e.g., "Being a capable student is..."), using a

6-point Likert scale ranging from 1 (*not central to my sense of self*) to 6 (*very central to my sense of self*). An overall summed score is calculated. Total scores can range from 6 to 30. Higher scores on the scale translates to a stronger academic identity. Developers of the AAIS reported adequate reliability (α = .93) for the academic identity subscale. For the current sample, the Cronbach's alpha was (α = 94).

Sport Well-being

The Sport Mental Health Continuum-Short Form (MHC-SF; Foster & Chow, 2019) consists of 14 items designed to measure well-being in sport (see Appendix D), using a 6-point Likert-type scale, ranging from 0 (*never*) to 5 (*every day*). All items must be read with the premise "During the past month, how often did your sport participation make you feel." Higher scores on this scale indicate higher levels of well-being in relationship to respondents respective sport. Although this scale has not been previously used in other athlete samples, Foster and Chow (2019), showed high test-retest reliability within their sample of student-athletes. In the current sample, the alpha level for the questionnaire was (α =.94).

Overall Well-being

The Warwick-Edinburgh Mental Health Well-being Scale (WEMWBS; Tennant et al., 2007) was used to measure participants' mental well-being. This questionnaire consists of 14 items measuring hedonic (i.e., subjective experiences of happiness and life satisfaction) and eudemonic (i.e., psychological functioning and self-realization) well-being. Using a 5-point Likert scale ranging from 1 (*none of the time*) to 5 (*all of the time*), individuals are asked to rate each statement based on how they have felt over the past two weeks. Items include, "I've been feeling optimistic about the future" and "I feel confident

in myself." A higher score on the questionnaire signifies a higher overall well-being. The WEMWBS was validated with a college student population and demonstrated acceptable internal consistency (α = .89) (Stewart-Brown & Janmohamed, 2008). Similar results were found within the current sample (α = .87).

COVID-19 Questionnaire

Because data collection took place during the second wave of the COVID-19 pandemic (summer of 2020), I created a 7-item questionnaire (see Appendix F) to measure the impact of the COVID-19 pandemic related interruptions. Items were related to school (e.g., "How much had/did COVID-19 interrupt your ability to complete your course work during the Spring 2020 semester?") and athletic (e.g., "How much has/did covid-19 interrupted your life as an athlete in the past months?") activities that may have been interrupted for student-athletes. To create the items, I used other COVID-19 questionnaires as examples to learn the type of language being adopted. Once the items were created, the committee reviewed them and made suggestions before solidifying the seven items that were included in the study. Using a five-point Likert scale, ranging from 5 (*A great deal*) to 1 (*Not at all*) each participant was asked to rate each statement based on how impactful COVID-19 had been to that specific area of their lives. A higher overall score meant COVID-19 had a greater impact on the student-athletes life. Although it was beyond the scope of the current study to test the factor structure and construct validity of the scale, face validity was achieved by reaching consensus among dissertation committee members about what items were most aligned with the purpose of the scale. Additionally, the internal consistent reliability of the scale was assessed, and results yielded adequate levels of reliability (α = .83).

Procedure

The study was submitted for review and approval to ASU's Institutional Review Board (IRB). Once the study was approved, I began recruitment by publicizing the study through sport psychology and academic listservs (e.g., Association of Applied Sport Psychology Listserv, SportPysch Listserv). Additionally, a flyer was created to disseminate on social media platforms targeting student-athlete populations. I also sent emails to coaches across the United States who were a part of a Division I institution. The email shared information about the study, along with a Qualtrics link that could be forwarded for student-athletes interested in participating. Aligned with snowball sampling procedures, at the end of the survey participants were asked to share the online study link with others they believe may meet inclusion criteria or would be interested in the study. No incentive was offered to participants for completing the study.

Upon accessing the online survey link, informed consent was obtained. To increase accuracy and reduce instances of inattentiveness and distraction in responding, three validity-check items were included (at the beginning, middle, and end of the study), which instructed participants to select a specific answer (e.g., "For this question, please select all of the time."). Participants who failed to respond correctly to any of the three validity items were deleted from the sample. The validity review resulted in the deletion of five participants.

Design and Data Analyses

All analyses were completed using SPSS Version 27 (IBM, 2020). Before conducting main study analyses, the distribution of the data was assessed using QQ-plots, histograms, and descriptives. Additionally, the reliability of each scale and subscale was

evaluated using Cronbach's alpha reliability. The last step in my data assessment was to ensure all regression assumptions (normality, linearity, multicollinearity and homoscedasticity) had been met.

To answer the first two research questions, bivariate correlations were run between athletic identity, academic identity, overall well-being, and sport well-being. Based on the results of the correlations, I ran six separate hierarchical regressions to answer research questions three and four. The six regressions examined the way the demographic factors of race, gender, and year in school affected the relationship between athletic identity and sport well-being, and between academic identity and overall well-being. I also ran a separate hierarchical regression on the way the COVID-19 interruption impacted the relationship between athletic identity and sport well-being, and academic identity and overall well-being. Finally, I ran a moderation analysis to examine the potential effect of academic identity on the association between athletic identity and well-being. In the next chapter, I delineate the results of data distribution, regression assumptions, and main analyses.

CHAPTER 4
RESULTS

In this chapter, I present the different analyses that were completed to answer the six research questions outlined in Chapter 2 to examine the way student-athletes athletic and academic identities are associated with sport and overall well-being.

Data Cleaning and Screening

Prior to completing the main analyses, I completed checks on the data. The first step consisted of checking the data for outliers, distribution, and missingness. To explore possible outliers, I ran casewise diagnostics which help identify cases with standardized residual greater than three standard deviations from the mean. Based on this analysis, no outliers were detected in in the current sample. Additionally, to inspect for normal distribution across the sample, a Shapiro Wilks test of normality was conducted, where *p*-values greater than .05 indicated normal distribution of the data (Field, 2018). Results from the Shapiro Wilks test showed that the data was normally distributed. The normal distribution of the current data was also visually confirmed through histograms and Q-Q plots. To manage missing data, cases were omitted in a listwise fashion. That is, participants with missing data were removed from the analysis. The final step consisted of testing four regression analyses assumptions: a) independence of observations, b) linearity, c) homoscedasticity, and d) multicollinearity. To test for independence of observations, the Durbin-Watson statistic was used to identify the relationships between observations. Values close to 2 suggest independence (Field, 2018). Results from this analysis showed that the Durbin-Watson for the current study was 1.86, therefore this assumption was met. The linearity condition states that the relationship between the

predictor variables and the dependent variable is linear. To assess this assumption partial regression plots and a plot of standardized residuals against the predicted values was conducted. Results from this test indicated that the independent and dependent variables were linearly related. The assumption of homoscedasticity states that the error variance (residuals) will be randomly scattered around all the values of the independent variable (Field, 2018). This assumption was met through a visual inspection of a plot of standardized residuals versus unstandardized predicted values, on the plot, cases were evenly spread and showed no pattern. Finally, the presence of multicollinearity was evaluated by evaluating the VIF score, and if the score is between 1 and 10 then there is no multicollinearity present, in our study the score was 1.923 indicating the assumption was met.

Main Analysis

Prior to beginning the main analysis, I provided the means for all variables of interest on table 4. To answer the first two research questions, I completed a correlation analysis to explore the association between athletic identity, academic identity, sport well-being, and overall well-being (see table 5). Results showed a statistically significant negative correlation between athletic identity and sport well-being, r (212) = -.21, p =.02. Additionally, there was a statistically significant positive correlation between academic identity and overall well-being, r (207) = .17, p =.01. On the other hand, the results showed a non-statistically significant relationship between academic identity and sports well-being, r (213) = .08, p =.23. Similarly, no statistically significant association was found between athletic identity and overall well-being, r (210) = .04, p =.50. Furthermore, COVID-19 related interruption was shown to have a statistically significant

negative relationship with overall well-being, r (208) = -.35, $p < .01$ and sport well-being, r (208) = -.27, $p < .01$. Together, these results provide partial support for hypotheses 1 and 2.

To answer question three, I conducted three separate hierarchical regression analysis to examine whether the association between athletic identity and sport well-being varied as a function of three demographic factors: a) year in school, b) gender, and c) race. Three steps were followed on each of the regressions. On step one, I tested whether athletic identity was a significant predictor of sport well-being. Next, I tested whether each of the demographic variables explained sport well-being variance above and beyond athletic identity. On step 3, I tested whether an interaction between athletic identity and the demographic factor significantly explained sport well-being. Below I outlined the results for each of the regressions.

Athletic Identity, Year in School, and Sport Well-being

As shown on Table 6, results from the first step showed that athletic identity significantly predicted sport well-being, F (1, 212) = 9.68, p =.01, R^2=.04. Adding year in school, contributed significantly to the variance explained on sport well-being, F (1, 211) = 6.03, p = .02, R^2=.07, ΔR^2 = .03. However, results indicated that the interaction between athletic identity and year in school was not a significant predictor of sport well-being, F (1, 210) = 0.34, p = .56. A closer look at the association between athletic identity, year in school, and sport well-being showed that athletic identity (β = -.19, t = -2.84, p =.01) and year in school (β = -.164, t = -2.45, p =.02) negatively predicted sport well-being. This appears to indicate that as athletic identity and year in school increases, sports well-being decreases, and this finding supports our third hypothesis.

Athletic Identity, Gender, and Sport Well-Being

For the second hierarchical regression, athletic identity negatively predicted sport well-being, F (1, 212) = 9.68, p =.02, R^2=.04. Unexpectedly, gender identity (male/female), did not contribute significantly to the variance of sport well-being, F (1, 211) = 2.73, p = .10. Similarly, the interaction between gender and athletic identity was not statistically significant, F (1, 210) = 0.34, p = .95 (see table 7). This seems to indicate that for the present sample, gender was not a significant correlate of sport well-being, which we did not expect as we hypothesized that male athletes would have a higher sport well-being as compared to female athletes.

Athletic Identity, Race, and Sport Well-Being

In the third hierarchical regression, athletic identity significantly predicted sport well-being, F (1, 212) = 9.68, p < .01, R^2=.04 (see Table 8). The addition of race (White, Non-White) contributed significantly to the variance explained of sport well-being, F (1, 211) = 13.07, p < .01, R^2=.09, ΔR^2 = .05. However, the interaction between athletic identity and race was not statistically significant, F (1,210) = 2.28, p = .13. A closer look at the regression coefficients on step 2 showed that for every unit increase in athletic identity, sport well-being decreased (β = -.24, t = -3.60, p < .01). On the other hand, identifying as a White student-athlete positively predicted sport well-being (β = .24, t = -2.45, p <.01). These results suggest that as compared to White student-athletes, students of color had lower sport well-being. This finding did not support our fourth hypothesis.

To answer question four, I ran three separate hierarchical regression analysis to examine if the association between academic identity and overall well-being varied as a function of the same three demographic factors: a) year in school, b) gender, and c) race.

I followed the same procedures used in the regression analyses conducted to answer question 3. At step one, I tested whether academic identity was a significant predictor of overall well-being. Secondly, I tested whether each of the demographic variables explained overall well-being variance above and beyond academic identity. In the last step, I examined whether an interaction between academic identity and the demographic factor significantly explained overall well-being.

Academic Identity, Year in School, and Overall Well-Being

For the first step of the regression model, academic identity significantly predicted overall well-being, F (1, 207) = 6.50, p = .01, R^2=.03 (see Table 9). Adding year in school, did not contribute significantly to the variance explained of overall well-being, F (1, 206) = 1.81, p =. 28. Similarly, the interaction between year in school and academic identity, showcased that it was not a statistically significant predictor of overall well-being, F (1, 205) = 1.25, p = .27. Based on the regression, academic identity (β = .17, t = 2.55, p = .02) positively predicted overall well-being. That is, in the current sample, for every unit increase in academic identity there was a significant increase in overall well-being. Finding that year in school had no relationship with overall well-being did not support our fifth hypothesis.

Academic Identity, Gender, and Overall Well-Being

As shown in table 10, academic identity predicted overall well-being, F (1, 207) = 6.50, p = .01, R^2=.03. Adding self-reported gender (male/female), did contribute significantly to the variance explained for student-athletes overall well-being, F (1, 206) = 6.18, p =.01, R^2=.06, ΔR^2 = .03, yet the interaction between gender and academic identity did not contribute to the variance explained, F (1, 205) = 0.13, p = .72. An

examination of the regression coefficients on step 2 showed that academic identity (β = .20, t = 2.94, p < .01) positively predicted overall well-being, while gender (β = -.17, t = -2.49, p = .02) negatively predicted well-being. Put together these results indicate that among student-athletes, as academic identity increase, so does overall well-being. However, identifying as a woman was associated with a decrease in overall well-being.

Academic Identity, Race, and Overall Well-Being

In the final hierarchical regression, academic identity predicted overall well-being, F (1, 207) = 6.50, p < .01, R^2=.03 (see table 11). Adding race (White, Non-white), contributed significantly to the variance explained of overall well-being within the sample, F (1, 206) = 6.18, p < .01, R^2=.06, ΔR^2 = .03. At stage 3, the interaction between race and academic identity, however, was not statistically significant, F (1, 205) = 0.27, p = .61. In looking at the relationship between academic identity, race, and overall well-being, academic identity (β = .16, t = 2.42, p = .02) and race (β = .18, t = -2.49, p = .01) positively predicted overall well-being. That is, as academic identity increased, so did overall well-being. Similarly, identifying as a white student-athlete was associated with having a higher overall well-being.

Interaction between Athletic Identity and Academic Identity

To answer the fifth research question, I ran a regression analysis exploring a possible moderation effect of academic identity on athletic identity and sport well-being. Stage 1 showed athletic identity predicted sport well-being, F (1, 211) = 9.83, p < .01, R^2=.05. The addition of academic identity at stage 2, did not contribute significantly to the variance explained for sport well-being, F (1, 210) = 1.64, p = .20, R^2=.01.The interaction between academic identity and athletic identity did not significantly add to the

variance explained for sport well-being, F (1, 210) = 0.83, p = .45. Put together the results suggest that academic identity did not have a moderation effect on the association between athletic identity and sport well-being.

COVID-19 and Well-Being

To answer the final research question, I ran two separate regression analyses to examine the association between the interruption related to the COVID-19 pandemic and the two different forms of well-being. For the first regression I looked at COVID-19, athletic identity, and sport well-being. Results from the first step of the model showed that athletic identity predicted sport well-being, F (1, 206) = 9.65, p < .01, R^2=.05 (see Table 13). Results also indicated that the COVID-19 related interruption contributed significantly to the variance explained for sport well-being, F (1, 205) = 19.80, p < .01, R^2=.13, ΔR^2 = .08. However, the interaction between athletic identity and COVID-19 related interruption was not statistically significant, F (1,204) = 3.27, p = .07. Together, the results from this hierarchical regression indicate that as athletic identity (β = -.24, t = -3.71, p < .01) and COVID-19 related interruptions (β = -.29, t = -4.45, p<.01) increased, sport well-being significantly decreased. For the second regression I examined COVID-19 interruptions, academic identity, and overall well-being. At stage 1, academic identity predicted overall well-being, F (1, 205) = 6.52, p = .02, R^2=.03 (see Table 13). Adding the COVID-19 related interruption contributed significantly to the variance explained for overall well-being, F (1, 204) = 23.41, p < .01, R^2=.13, ΔR^2 = .10. However, the interaction between academic identity and COVID-19 related interruption was not statistically significant, F (1, 203) = 3.12, p = .24. Together, the results from this hierarchical regression indicated that as academic identity (β = .19, t = 2.73, p < .01)

increased there was a positive relationship with overall well-being and as COVID-19 related interruptions increased (β = -.32, t = -4.84, p < .01), overall well-being decreased.

CHAPTER 5

DISCUSSION

The study examined the association between athletic identity, academic identity, overall well-being, and sport well-being in a sample of Division I student-athletes. The results provided partial support for the association between these variables. Specifically, I found a negative relationship between participants athletic identity and sport well-being, and a positive association for their academic identity and overall well-being. Additionally, the analyses showed that participants' year in school and racial identification were significantly associated with sport well-being. Student-athletes' gender and racial identification were also significant predictors of overall well-being. A secondary aim of the study was to evaluate whether interruptions to school- and sport-related activities due to the COVID-19 pandemic were correlates of student-athletes' reported overall and sport well-being. As shown in Tables 13 and 14, the COVID-19 pandemic was negatively associated with overall and sport well-being. Below I expand on these findings and discuss important implications for practice and research with Division I student-athletes.

Athletic Identity & Sport Well-being

Contrary to my first hypothesis, results showed a non-significant relationship between student-athletes' athletic identity and overall well-being. Although somewhat surprising, this finding aligns with past research, which has also failed to find an association between athletes' subjective well-being and their athletic identity (Black & Smith, 2007; Verkooijen et al., 2012). This result could be explained by past literature showing if student-athletes solely focus on athletic identity and have little to no

exploration of other identities then this leads to a negative relationship to well-being (Miller & Kerr, 2002). Therefore, participants in the current study could have been focused on multiple identities rather than just concentrated exclusively on athletic identity, which may explain the non-significant result. Taken together, these findings also suggest that athletic identity may be an inconsistent correlate of student-athletes' sense of well-being. Furthermore, unexpectedly I found a negative association between athletic identity and sport well-being. This finding stands in contrast to previous literature showing that student-athletes with a stronger athletic identity also report higher levels of sport well-being (Brewer et al., 1993; Burns et al., 2012). Interruptions caused by the COVID-19 pandemic, could be a potential explanation for this surprising finding. For many student-athletes, the support and positive social interactions that result from engaging in sport activities has been identified as a buffer against stress and a determinant of well-being (Doherty et al, 2016; Gulliver, Griffiths, & Christensen, 2012). However, actions taken by colleges and universities to prevent the spread of the COVID-19 virus significantly cutback sport activities (i.e., practices, competitions, trainings) during the Spring 2020 semester. These interruptions have been in turn associated with psychological distress among student-athletes (Bullard, 2020). Therefore, it is possible that interruptions related to the COVID-19 pandemic might have been a barrier for student-athletes in the sample to engage in sport related activities associated with well-being. This is also supported by our results. That is, I found that sport well-being was significantly negatively correlated with the COVID-19 interruptions. That being said, COVID-19 interruptions did not moderate the link between athletic identity and sport well-being. In other words, interruptions related to COVID-19 seems to be an important,

yet independent correlate of sport well-being in the current sample. It would be important for future studies to explore the relationship between sport well-being and athletic identity in relation to possible long-term effects of the COVID-19 interruption among student-athletes.

Year in School & Sport Well-being

Participants' year school was also found to be an important determinant of sport well-being in the current sample. Specifically, compared to underclassmen student-athletes, upperclassmen students reported significantly lower levels of sport well-being. This finding could be explained by differences in experiences across years. For example, upperclassmen student-athletes may report less enjoyment when practicing their sport, compared to when they first entered college because of burnout related to constantly having to meet academic and sport-related demands (Sorkilla et al., 2019). Differences in career goals across upper and underclassmen student-athletes may also help explain this finding. That is, aspirations for having a professional sports career may be higher among underclassmen student-athletes than among upperclassmen student-athletes. On the other hand, as upperclassmen student-athletes get closer to the end of their college career, other areas of career interest may be more central and of greater interest. Thus, engagement in sport may be experienced as less satisfying and/or less important to their everyday functioning. This assertion is supported by data from a study by Lally (2007), which examined retirement from athletic careers among student-athletes. Results from their study showed that upperclassmen reported a lower athletic identity in anticipation of experiencing a diminished role of sport involvement in their lives (Lally, 2007). Additionally, Woodruff and Schallert (2008), observed that aspirations for a professional

athletic career post-graduation were stronger among first year student-athlete populations than among student-athletes in their final year. Thus, underclassmen student-athletes may be more likely to be invested and engaged in sport related activities as compared to upperclassmen student-athletes and therefore have higher levels of sport well-being (Fountain & Finley, 2011). Although not measured in the current study, it is possible that aspirations for a professional athletic career beyond college may help explain differences in sport well-being between under and upperclassmen student-athletes sampled in my study. Alternatively, if athletic identity remains strong across time, it is possible that upperclassmen student-athletes with a strong athletic identity may experience a lowered sense of sport well-being as a function of facing the end of their collegiate athletic career. That being said, year in school did not moderate the relationship between athletic identity and sport well-being. It may be that level of engagement in sport and/or aspirations for a professional sports career could better explain the relationship between athletic identity and sport well-being. Future studies should focus on how athletic identity and sport well-being may vary as a function of time using longitudinal study designs.

Race & Sport Well-being

Results of the current study also indicated student-athletes of color had significantly lower levels of sport well-being compared to White student-athletes. This finding is also surprising. As stated in the third hypothesis, it was expected that student-athletes of color would report higher levels of sport well-being. Although unexpected, this result may be in part due to the negative experiences and stereotypical expectations student-athletes of color encounter within their sport. For example, in Lee and colleagues (2018) study, they reported that student-athletes of color experienced more racism in their

schools and within their sport than their White counterparts. While our study did not measure racism, it is possible that student-athletes of color in the sample might have experienced more discriminatory events associated with both identities and thus have lower levels of sport well-being. It is also important to note that while racial identification did not moderate the association between athletic identity and sport well-being, racial identification should be considered a distal variable as it relates to how student-athletes of color function within their schools and sports. Future investigations should evaluate how experiences of ethnoracial discrimination may help explain the association I found between racial identity and sport well-being. For example, experiences of discrimination outside or within their sport may be an important correlate of sport well-being among student-athletes of color. It would also be important for future studies to examine how internalized racialism (Cokley, 2002), defined as the internalization of both negative and positive stereotypes about one's racial group, may affect sport well-being. For example, if a Black student-athlete of color believes that they have an innate ability to perform better in their sport because of their identity as a Black individual, experiences that violate this expectation (e.g., underperforming in their sport) may lead the student to experience lower levels of sport well-being compared to students who do not internalized similar racial ideologies.

Gender & Sport Well-being

Gender identification was not a significant correlate of sport well-being, contrary to our third prediction. The lack of a significant correlation between gender and sport well-being has also been observed by other researchers. To illustrate, Kamusoko and Pemberton (2011), found no significant relationship between student-athletes' gender

identity and their well-being. Similarly, Downward and Rasciute (2011), observed that while sport participation increased subjective well-being among athletes, no statistical differences in well-being were found across genders.

Academic Identity, Race, & Overall Well-being

As stated in my fourth hypothesis, student-athlete's academic identity was positively associated with overall well-being. This finding is also consistent with those reported by van Rens et al. (2019), which found that student-athletes who reported stronger academic identity also reported higher levels of well-being. Additionally, racial identification was also a significant correlate of overall well-being. In the current study, White student-athletes had significantly higher levels of overall well-being than student-athletes of color. This finding also lends support for my fourth hypothesis and adds to available literature by further documenting this association. For example, findings by Cooper and Doughtery (2015) indicated that Division I Black student-athletes at a Predominantly White Institutions (PWI) reported lower levels of satisfaction and well-being across various domains (e.g., interpersonal relationships, academic performance) than their White peers at the same institution. Furthermore, research by Cooper and Hawkins (2012) also points out how PWI's are often more concerned with Black student-athletes' sport performance than their academic and overall adjustment. Moreover, research has shown how university faculty tend to have more negative perceptions about both student-athletes and student-athletes of color (Comeaux, 2010; Simons et al., 2007). Therefore, the multiplicative effects of being both a person of color and a student-athlete may explain why in the current study student-athletes of color reported lower overall well-being as compared to their White peers. As with the relationship between athletic

identity and sport well-being, racial identification did not mediate the association between academic identity and overall well-being. Thus, as previously mentioned assessing experiences of ethnic and/or racial discrimination may be an important next step to help clarify the association between racial identity and overall well-being. That is, levels of overall well-being may be dependent not on the racial identity of the student-athlete but how much or how little they encounter ethnoracial discrimination.

Gender & Overall Well-being

Student-athletes' gender was also a significant correlate of overall well-being. Specifically, the results showed that female student-athletes reported significantly lower overall well-being than male student-athletes. This finding is aligned with other studies, which have found that male student-athletes had higher levels of well-being compared to female athletes (Cnen et al., 2019). Researchers have also observed that female student-athletes consistently report more anxiety and depressive symptoms than their male counterparts (Rice et al. 2019; Yang et al., 2007). The negative gender stereotypes that female student-athletes have to contend with could also help explain lower levels of overall well-being. To illustrate, Rayburn et al. (2015) showed that even when universities provide support to their female student-athletes, they are still more likely to report higher levels of distress. Nonetheless, gender identification did not moderate the relationship between academic and overall well-being. However, gender identification seems to be an important independent correlate of overall well-being in the current sample and should continue to be included in future studies as a significant determinant of well-being in this population. It would also be important to examine whether gender discrimination could moderate the association between gender and overall well-being.

That is, lower levels of overall well-being may be dependent on the frequency of gender-based discrimination female student-athletes encounter within and/or outside of their sport.

Year in School & Overall Well-being

Although I predicted as part of the fourth hypothesis, that upperclassmen student-athletes would report higher levels of overall well-being as compared to underclassmen student-athletes, I failed to find a significant relationship between these two variables. This could be due to low variability in responses across the different year in school groups. Additionally, a recent study of student-athletes at a Division I institution noted that subjective well-being was generally high across participants regardless of year in school (Morris et al., 2020).

Academic ID & Athletic ID with Sport Well-being

To answer question five, a moderation analysis was completed to examine whether different levels of academic identity would affect the association between athletic identity and sport well-being. The results showed no moderation effect. This suggests that the relationship between athletic identity and sport well-being did not change as a function of different levels of academic identity. The independence of academic and athletic identities among college athletes has also been previously observed. In a study with Australian student-athletes, researchers established through a mixed method design that academic and athletic identities were perceived as independent by study participants (van Rens et al., 2019). On the other hand, this finding contradicts other studies that have found student-athletes' academic and athletic identities to have been interrelated (Yukhymenko-Lescroart, 2018). The differences across studies

highlights the complexity of measuring multiple identities among student-athletes. According to identity theory, individuals can simultaneously occupy various social identities throughout their lives (e.g., being both a student and an athlete), and that identities can act on each other to influence the individuals' experiences and functioning (Schwartz et al., 2011; Stets & Burke, 2000). In the current study, however, these two identities did not seem to affect the other. In other words, their identity as students did not appeared to have informed their identity as athletes or how they felt in relationship to their sport. It is worth noting, however, that the observed independence could also be explained by the measures we used to assess each identity. To illustrate, items related to identity did not ask participants to think about one identity in relation to the other. Therefore, participants could have answered differently to an item that would have asked them to consider both identities concurrently; so future investigations should consider adapting available measures to assess the interrelatedness of these two identities.

COVID-19 & Well-Being

Results showed that COVID-19 interruptions were significantly associated with student-athletes reported overall and sport well-being. Specifically, COVID-19 interruptions were associated with lower levels of both overall well-being and sport well-being. Although no hypotheses were generated in relationship to COVID-19 interruption, these findings align with recent research on the subject. To illustrate, results from a U.S. nationwide survey conducted by the National Collegiate Athletic Association (NCAA) regarding spring of 2020 showed that a significant number of student-athletes reported experiencing high rates of psychological distress since the outset of the pandemic. According to their report, mental health concerns were 150% to 250% higher compared

to past national reports (NCAA, 2020). Although the present study did not directly assess psychological symptoms associated with COVID-19 interruptions, the significant increase in mental health concerns observed by other studies contextualizes this finding. That is, it is possible that student-athletes who experienced more interruptions and reported lower levels of well-being could have also experienced more mental health concerns. Given, the impact of COVID-19 interruptions on student-athletes mental health (NCAA, 2020), it would be important to continue investigating the longitudinal impact COVID-19 may have on student-athletes overall mental health and well-being.

Limitations and Future Directions

Study results should be interpreted considering its limitations. As previously mentioned, although racial and gender identification were significant correlates of well-being in this sample, neither moderated the association between athletic or academic identity and well-being. Instead, social processes related to identities (e.g., racial and gender discrimination) should have been included in the current study as potential moderators. Additionally, while the COVID-19 interruption items created for this study yielded a strong Cronbach's alpha (.83), it was beyond the score of the study to establish the items validity. Therefore, it would be important for future studies to test the factor structure, reliability, and validity of the tool created to see if it can be adopted in future studies. Moreover, the cross-sectional design of the current study, prevented us from examining how the association between academic identity, athletic identity, and well-being might have changed as a function of time. Thus, future studies should use longitudinal designs that can help examine student-athletes' identity development across time.

Although the current study offers important insights into the role academic and athletic identity have on student-athletes' well-being, my sample only included Division I student-athletes. As the amount of commitment and effort required by student-athletes varies across divisions, future research should examine how levels of academic and athletic identities and well-being may be different across division levels of collegiate sport.

Implications for practice with student-athletes'

Taken together, results suggest that academic identity is positively associated with student-athletes overall well-being. Based on this result, practitioners working with student-athletes are encouraged to assess and support activities that foment academic identity among student-athletes. Because higher levels of athletic identity were associated with lower levels of sport well-being, it would also be important for practitioners to understand how athletic identity may influence student-athletes well-being, particularly among student-athletes of color. Practitioners should also provide support to students experiencing less satisfaction in relation to their sport. For example, practitioners could collaborate with student-athletes to identify steps and actions that could help student-athletes have higher levels of sport well-being such as increasing social support (Cranmer & Sollito, 2015) or changing their motivational environment (Bakiari & Syrmpas, 2015).

The results also showed specific student-athlete demographic factors are important correlates of well-being within and outside their sport. For example, the differences in sport well-being based on student-athletes year in school is an important factor practitioners should keep in mind when working with this population. For example, it would be important for practitioners to assess how third- and fourth-year student-

athletes are doing within their sport and find ways to support them as they are starting to embrace life outside of athletics. As race was also an important indicator of overall and sport well-being it would be crucial for practitioners to do their own research on ways, they can provide aid to this subpopulation. For example, past literature showcases that social support from teammates and families is associated with better mental health among student-athletes of color (Thompson, 2010). Thus, practitioners can encourage student-athletes of color to establish relationships within and outside of their sport to combat the possible negative hardships they are enduring. Supporting student-athletes of color may also require practitioners to engage in actions that can challenge and change academic and athletic department policies, and/or structures that negatively affect racial and ethnic minority student-athletes. In response to the harsh and unwelcoming environments student-athletes of color face in academic institutions, multiple coalitions have been formed by these students in college campuses across the United States. These groups seek to provide support and a safe space for student-athletes of color to share their experiences. Hence, it would be important for practitioners to learn about these groups and help connect student-athletes of color or even organize in collaboration with their client to create a group within their institution.

Along with practitioners, athletic departments and administrators should also have an important role in providing support and assistance to student-athletes. For example, as I noticed a positive relationship between academic identity and well-being, athletic departments can focus on fostering this identity early within student-athletes college careers by showcasing the importance of doing well in school and providing support for student-athletes to feel prepared to do well academically. This could also be achieved by

having panels with former student-athletes as a way for current student-athletes to provide questions and to hear directly from alumni on the ways they were able to succeed academically and within their sport. Similarly, athletic departments can help implement programs and policies that foster sport well-being in collaboration with coaches and school administrators. This can be done by creating and administering a needs survey for student-athletes which asks for feedback on specific aspects within their sport they wish to have more of and to build an environment that can help them do well. Additionally, administrators can hire a consultant to provide guidance on the ways they can implement different interventions to help foster a positive sport experience for the student-athletes at their respective institutions. Moreover, athletic departments can adopt the Excellence Beyond Athletics (EBA) approach (Cooper, 2016). The EBA encourages school administrators and athletic departments to create programs that support positive social engagement, close mentorship, and career advice for student-athletes. Furthermore, to continue to foster a positive environment, administrators can host open dialogues with student-athletes about ways they wish to be supported, while also having student-athlete advocates who can speak for the collective as a way to showcase solidarity and support for this subpopulation. Lastly, given the ongoing COVID-19 pandemic it would be important for athletic departments across the United States to assess how COVID-19 have or may continue to influence the well-being of student-athletes and when needed, help connect student-athletes to sport consultants and/or mental health professionals that could offer additional psychological support.

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APPENDIX A

DEMOGRAPHIC INFORMATION SHEET

Please complete the following background information and then complete the questionnaires attached. Circle answer where appropriate. Thank you.

1. Age

2. Gender Male Female Non-Binary Other_____

3. Race American Indian/Alaskan Native

   Asian

   Black or African American

   Native Hawaiian or other Pacific Islander

   Latino/Hispanic

   Bi-racial

   Other (please specify)_____

4. Year in school 1st year 2nd year 3rd year 4th year
   5th year

5. Scholarship status Full athletic scholarship

   Partial athletic scholarship

   No athlete scholarship

6. Sport(s) in which you participate _____

7. Years participating in sport _____

8. Type of institution Historically Black servicing college or Institution (HBCU)

   Predominantly White serving Institution (PWI)

   Hispanic Serving Institution (HIS)

   Not sure

9. GPA ____

10. Number of hours participant in sport relate activities _____

11. Number of hours allocated to academic activities _____

APPENDIX B

ATHLETIC IDENTITY MEASURMENT SCALE (AIMS)

Please fill out the Athletic Identity Measurement Scale. Circle the number that best reflects the extent to which you agree or disagree with each statement regarding your sport participation.

1. I consider myself an athlete.

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

2. I have many goals related to sport

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

3. Most of my friends are athletes

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

4. Sport is the most important part of my life

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

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

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

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

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

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

Strongly disagree 1 2 3 4 5 6 7 Strongly Agree

APPENDIX C

ACADEMIC IDENTITY SCALE

Please fill out the scale below. Circle the number that best reflects the extent to which you believe the statement is central to who you are.

1. Being a capable student

Not Central to my sense of self 1 2 3 4 5 6 Very Central my sense of self

2. Being satisfied with my academic work

Not Central to my sense of self 1 2 3 4 5 6 Very Central my sense of self

3. Doing well in school

Not Central to my sense of self 1 2 3 4 5 6 Very Central my sense of self

4. Getting good grades

Not Central to my sense of self 1 2 3 4 5 6 Very Central my sense of self

5. Having a high GPA

Not Central to my sense of self 1 2 3 4 5 6 Very Central my sense of self

APPENDIX D

SPORT MENTAL HEALTH CONTINUUM SHORT-FORM

During the past month, how often did your sport participation make you feel...	NEVER	ONCE OR TWICE	ABOUT ONCE A WEEK	ABOUT 2 OR 3 TIMES A WEEK	ALMOST EVERY DAY	EVERY DAY
1. happy	0	1	2	3	4	5
2. interested in your sport	0	1	2	3	4	5
3. satisfied	0	1	2	3	4	5
4. that you had something to contribute to your team or sport community	0	1	2	3	4	5
5. that you belonged to your team or sport community	0	1	2	3	4	5
6. that your team or sport community is a good place for all participants	0	1	2	3	4	5
7. that people in your sport are basically good	0	1	2	3	4	5
8. that the way your sport is organized makes sense to you	0	1	2	3	4	5
9. that you liked most parts of your athletic personality	0	1	2	3	4	5
10. good at managing the daily responsibilities of your sport	0	1	2	3	4	5
11. that you had warm and trusting relationships with others in your sport	0	1	2	3	4	5
12. that you had sport experiences that challenged you to grow and become a better person	0	1	2	3	4	5
13. confident to think or express your own ideas and opinions to people in your sport	0	1	2	3	4	5
14. that you have a sense of direction or meaning within your sport	0	1	2	3	4	5

APPENDIX E

THE WARWICK-EDINBURGH MENTAL WELL-BEING SCALE (WEMWBS)

Below are some statements about feelings and thoughts.
Please circle the box that best describes your experience of each over the past 2 weeks.

Statements	None of the time	Rarely	Some of the Times	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been feeling interested in other people	1	2	3	4	5
I've had energy to spare	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling good about myself	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been feeling confident	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5
I've been feeling loved	1	2	3	4	5
I've been interested in new things	1	2	3	4	5
I've been feeling cheerful	1	2	3	4	5

APPENDIX F

COVID-19 QUESTIONNAIRE

1. How much has/did covid-19 interrupt your day to day student life in the past months? For example, studying with friends, attending courses, receiving tutoring.

A great deal	A lot	A moderate amount	A little	None at all

2. How much has/did covid-19 interrupted your ability to complete your course work during the spring 2020 semester?

A great deal	A lot	A moderate amount	A little	None at all

3. How stressful are/were these interruptions to your academic activities?

A great deal	A lot	A moderate amount	A little	None at all

4. How much has/did covid-19 interrupted your life as an athlete in the past months? For example, practicing, weight training, performances/games

A great deal	A lot	A moderate amount	A little	None at all

5. How much has/did covid-19 impacted your ability to stay connected to your life as an athlete? For example, feeling like you are an athlete, having confidence in your athletic skills)

A great deal	A lot	A moderate amount	A little	None at all

6. How much has/did covid-19 impact your overall mental and emotional health? For example your mood, eating habits, sleeping patterns

A great deal	A lot	A moderate amount	A little	None at all

7. How stressful are/were these interruptions to your sport?

A great deal	A lot	A moderate amount	A little	None at all

APPENDIX G

IRB APPROVAL

IRB APPROVAL

Cristalis Capielo

CISA: Counseling and Counseling Psychology

-
Cristalis.Capielo@asu.edu

Dear Cristalis Capielo:

On 6/29/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Block and tackle or interfere: Intersecting identities and student-athletes well-being
Investigator:	Cristalis Capielo
IRB ID:	STUDY00012012
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Consent Form.pdf, Category: Consent Form; • Diss Survey.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • IRB Protocol_BallesterosJ.docx, Category: IRB Protocol; • Recruitment Email.pdf, Category: Recruitment Materials; • Recruitment Flyer.pdf, Category: Recruitment Materials;

The IRB determined that the protocol is considered exempt pursuant to FederalRegulations 45CFR46 on 6/29/2020.

In conducting this protocol you are required to follow the requirements listed in theINVESTIGATOR MANUAL (HRP-103).

APPENDIX H

TABLES

Table 1

Primary Sport

	Gender		
	Male *n* =62	Female *n* =179	Total *N*=241
Physical Contact			
Baseball	1	0	1
Basketball	10	13	23
Football	7	0	7
Wrestling	4	0	4
Hockey	1	0	1
Water Polo	0	2	2
Soccer	6	26	32
Physical Non-Contact			
Gymnastics	1	6	7
Crew	8	0	8
Cross Country & Track	11	36	47
Softball	0	19	19
Swimming	8	28	36
Bowling	0	2	2
Tennis	0	11	11
Golf	5	15	20
Volleyball	0	20	20

Table 2

Year in School

Year in school	Number of participants	Percentage of sample
1st year	68	28.2%
2nd year	54	22.4%
3rd year	51	21.2%
4th year and higher	68	28.2%

Table 3

Number of hours spent in academic and sport settings

Hours spent in activity	Sport Related Activities (*n*= 238)	Academic Related Activities (*n* = 236)	
10 hours or less	12	28	
10-15 hours	34	69	
15-20 hours	40	45	
20 or more hours		152	94

Table 4

Means, Standard Deviations, Range on Variables of Interest

Variable	Mean	Standard Deviation	Range
Athletic Identity	16.76	5.63	7-49
Academic Identity	24.85	4.44	6-30
Overall Well-being	41.43	7.32	14-70
Sport Well-being	57.77	12.54	0-70
Covid Qs	26.21	5.16	7-35

Table 5

Correlations

Measure	1	2	3	4
1. AIMS	-			
2. AID	.011	-		
3. SMHC	. -21**	.08	-	
4.	.037	.18*	.63**	-

**p < .001, *p <.05
Note- AIMS- Athletic Identity Measurement Scale, AID – Academic Identity Scale, SMHC- Sport Mental health Continuum, WEMWBS - Warwick-Edinburgh Mental Health Well-being Scale

Table 6

Hierarchical multiple regression predicting sport well-being from year in school and athletic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Athletic Identity	-0.21**	-3.11	-0.19**	-2.83	-0.26	-1.85
Year in School			-.16*	-2.46	0.29	-1.29
Athletic ID * Year in school					0.16	0.58
R^2	.04		.07		.07	
ΔR^2	.04		.03		.00	
F	9.67		7.96		5.41	
ΔF	9.68*		6.03**		.336	

Note - ** p <.01 * p < .05

Table 7

Hierarchical multiple regression predicting sport well-being from gender and athletic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Athletic Identity	-0.21**	-3.11	-0.22*	-3.22	-0.22	-1.65
Gender			-.11	-1.66	-.12	-0.56
Athletic ID * Gender					-.015	0.06
R^2	.04		.06		.06	
ΔR^2	.04		.01		.00	
F	9.67		6.24		4.14	
ΔF	9.68*		2.73		.004	

Note - ** p <.01 * p < .05

Table 8

Hierarchical multiple regression predicting sport well-being from race and athletic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Athletic Identity	-0.21**	-3.11	-0.24**	-3.60	-0.24	-0.16
Race			0.24**	3.61	0.57*	2.47
Athletic ID * Race					-0.43	-1.51
R^2	.04		.09		.10	
ΔR^2	.04		.05		.01	
F	9.67		11.64		8.57	
ΔF	9.68*		13.06**		2.28	

Note - ** p <.01 * p < .05

Table 9

Hierarchical multiple regression predicting overall well-being from year in school and academic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Academic Identity	.17*	2.55	.17*	2.50	0.35*	2.02
Year in School			-.07	-1.09	0.38	0.91
Academic ID * Year in school					-0.48	-1.12
R^2	.03		.04		.04	
ΔR^2	.03		.00		.00	
F	6.50		3.84		2.98	
ΔF	6.50*		1.81		1.25	

Note - ** p <.01 * p < .05

Table 10

Hierarchical multiple regression predicting overall well-being from gender and academic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Academic Identity	0.17**	2.55	0.20**	2.94	0.15	1.02
Gender			-0.17*	-2.49	-0.31	-0.77
Academic ID * Gender					0.15	0.36
R^2	.03		.06		.06	
ΔR^2	.03		.03		.00	
F	6.50		6.42		4.30	
ΔF	6.50*		6.18*		0.12	

Note - ** p <.01 * p < .05

Table 11

Hierarchical multiple regression predicting overall well-being from race and academic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Academic Identity	0.17**	2.55	0.16*	2.43	0.21	1.80
Race			0.18**	2.70	0.37*	1.01
Academic ID * Race					-0.20	-0.51
R^2	.03		.06		.06	
ΔR^2	.03		.03		.00	
F	6.50		6.98		4.72	
ΔF	6.50*		7.28*		0.27	

Note - ** p <.01 * p < .05

Table 12

Hierarchical multiple regression predicting sport well-being from athletic identity and academic identity

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Athletic Identity	-0.21**	-3.14	-0.21**	-3.17	-0.21**	1.80
Academic Identity			0.09	1.28	.07	1.19
Academic ID * Athletic ID					0.14	0.55
R^2	.05		.05		.05	
ΔR^2	.05		.00		.00	
F	9.83		5.75		3.46	
ΔF	9.83*		1.64		0.83	

Note - ** p <.01 * p < .05

Table 13

Hierarchical multiple regression predicting sport well-being from athletic identity and COVID-19

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Athletic Identity	-0.21**	-3.11	-0.24**	-3.72	0.24	0.88
COVID-19			-0.29	-4.45	.07	0.33
COVID-19 * Athletic ID					-.58	-1.81
R^2	.05		.13		.14	
ΔR^2	.05		.08		.01	
F	9.65		15.16		11.31	
ΔF	9.65**		19.80**		3.27	

Note - ** p <.01 * p < .05

Table 14

Hierarchical multiple regression predicting sport well-being from academic identity and COVID-19

	Model 1		Model 2		Model 3	
Variable	*B*	*t*	*B*	*t*	*B*	*t*
Academic Identity	0.18*	2.55	0.18*	2.74	0.40*	2.83
COVID-19			-0.32**	-4.84	-0.04*	-0.21
Academic ID * COVID-19					-0.38	-1.77
R^2	.03		.13		.14	
ΔR^2	.03		.10		.01	
F	6.52		15.32		11.36	
ΔF	6.52*		23.41**		0.01	

Note - ** p <.01 * p < .05