Spring 2022

The Athletic Identity and Cognitive Emotional Responses of Regis University Student Athletes in the Face of COVID-19

Madison Flores
Regis University

The Athletic Identity and Cognitive Emotional Responses of Regis University Student Athletes in the Face of COVID-19

A thesis submitted to
Regis College
The Honors Program
in partial fulfillment of the requirements
for Graduation with Honors

by

Madison Flores

May 2022

Thesis written by

Madison Flores

Approved by

Erin Winterrowd

Thesis Advisor

Thesis Reader or Co-Advisor

Accepted by

Amy L Shreeve

Director, Regis College Honors Program

Table of Contents

List of Figures

List of Tables

PREFACE AND ACKNOWLEDGEMENTS

I was 7 years old when I started playing softball. Over the past 15 years, I have gotten the opportunity to travel around the country, meet forever friends, learn life lessons about teamwork, selflessness, and persistence and make countless memories that I will hold in my heart forever. A significant portion of my identity is rooted in my love and passion for this sport, so I suppose I must begin my acknowledgements with gratitude for the game of softball for shaping me into the person I am today.

To my teammates and coaches, thank you for being my inspiration for this project. You all are my home away from home and the best part of my day. To my family, your support from 800 miles away was never lacking. Thank you for loving me and always pushing me to be the best daughter, sister, student, teammate and friend. To my roommates, Libby, Jessi and Maggie, thank you for being my soul sisters and a consistent source of peace and encouragement throughout this project. Writing this thesis has been the most challenging task of my college experience, and I truly could not have completed it without your support. I love you all.

Finally, thank you to Drs. Winterrowd and Partridge, my incredible advisor and reader. Dr. Partridge, your rhetorical expertise and shared passion for sports was exactly what my writing needed. Thank you for enhancing my writing in ways that I could never have considered. Dr. Winterrowd, your insight and thoughtful assistance has been invaluable. Thank you for guiding me through the complexity of conducting, analyzing and reporting my own research, for asking expansive questions and holding me accountable every step of the way. Both you and Dr. Partridge were so kind to sacrifice your time and energy on me and this project.

My most sincere gratitude goes to anyone who has been with me on this exciting, terrifying, challenging, yet most rewarding journey.

Abstract

Name: Madison Flores Major: Biology

The Athletic Identity and Cognitive Emotional Responses of Regis University Student Athletes in the Face of COVID-19

Advisor's Name: Erin Winterrowd

Reader's Name: Kate Partridge

COVID-19 impacted the entire world. One specific population of individuals who suffered from implications of the novel coronavirus was athletes. As the virus spread around the globe and quarantine regulations were being established, athletes across various competition levels experienced cancellations of their sport seasons. This event led many athletes to lose their athletic identity; the degree to which one identifies with the athletic role. Individuals who develop a stronger, more exclusive athletic identity are likely to experience more difficulties when sport related transitions like injury or retirement occur. In the present study, I predicted that athletes who have a higher athletic identity would implement less adaptive cognitive emotional responses to the cancellation of the 2020 competition season due to COVID-19. This hypothesis was tested using the Athletic Identity Measurement Scale and the Cognitive Emotion Regulation Questionnaire on Regis University student-athletes. I found a non-significant relationship between athletic identity and each cognitive emotional regulation strategy and that Regis University student-athletes employed adaptive responses more commonly than maladaptive responses. These results suggest that despite having a strong athletic identity, Regis University athletes utilized strong coping skills in response to the chaotic changes that COVID-19 induced. The present study contributes to the broader field of identity and the implications that the coronavirus had on the lives of athletes.

Chapter One: How COVID-19 Impacted Me

On March 12th, 2020 at 1:47 pm I received the text message from my softball coach reading, "We are going to have a team meeting in the locker room at 3:30 today." That's when I knew. The word "coronavirus" was bouncing around the Regis campus for a few days, but I did not realize that a virus that had just entered the United States could impact our team so quickly. We got hit by COVID before anyone was even infected.

It was a cold and gloomy day. We all sat on the couches in the locker room scrunched together, mostly to generate heat and escape the treacherous Colorado snow, but also because we knew we would soon need the embrace of a sister after receiving this news. The team meeting was bit of a blur. Coach explained to us that the coronavirus was very dangerous and spreading rapidly. Slowly and shakily, she shared that the Rocky Mountain Athletic Conference believed it was in the best interest of the athletes, coaches and officials that the season to be put on pause. They claimed they would reevaluate the status of the virus in a month to decide if it was safe to continue playing, but we all knew what these words meant. Our 2020 season was cancelled, and our four incredibly talented, passionate and softball-loving seniors would never play a game again. Our season and their careers were over.

Shock, devastation, and confusion fueled the tears of 23 girls. We held each other tight knowing that would take the place of holding the RMAC trophy at the end of the year. When we completed our last game three days before, we had expected to be heading down to the field, lacing up our cleats, and starting practice at that point. Instead, we were being told that our final game of the season had already been played, there would be no more practice and that plans for the future were nonexistent.

When reflecting on that day, Jessi Case, who at the time was a sophomore infielder, said that “no one would have expected that this situation would have come about… it was heartbreaking” As an athlete, you are always told to cherish your time playing and never take anything for granted, but those are just words until something truly strips away the sport you love. Regis baseball player, Zach Harstad explained that the boys “were in tears and [he would] never forget their faces” when their coach broke the news. Athletes across the globe had to endure this devastating loss. Thousands of high school and college seniors had their athletic careers cut unexpectedly short and the impact this would have on athletes’ physical, mental and emotional health was just beginning.

Due to the rapid spread of the coronavirus, Regis University classes transitioned to an online platform in March 2020. Lectures were held on Zoom. Labs were implemented through various online simulations and office hours were completed virtually. This format and the closing of on-campus housing forced many students to return home for the remainder of the semester. 9:30 am in-person classes turned into zoom lectures in bed. Late night ice cream runs with roommates became long distance facetime calls. Weekend softball games were traded for individual workouts at home. It was difficult to accept the loss of the season, but even more challenging to transition out of the eventful and exciting college experience I was a part of.

My routine was thrown off. I didn’t have the strict schedule of weights, class, work, practice, homework, and sleep. I remember feeling anxious about not having tasks to complete or places to be. Without the consistency and structure of softball and school, I was lost. A part of me was missing. I was incomplete.

In the moment, I struggled to understand why I was feeling this way. Classes had become much easier; I wasn’t pressured with the rigorous schedule that accompanies being a student-

athlete; my body was not constantly sore from practice or workouts; and I was getting more rest that I ever had during the spring semester. From an outsider's perspective, this would appear to be the ideal situation, but to me something was not right. My schedule hadn't been so empty since I was 8 years old and I was not responding well. I often found myself feeling gloomy, tired and unsatisfied. Family walks, puzzle time, binge watching TV, and completing homework every now and then were nothing compared to cheering on teammates, hitting homeruns, and pulling out a win for a tough game. I missed the challenge and competition that was presented to me every day on the field, but more importantly I missed the 23 sisters I got to experience it with. My identity was so encapsulated by every aspect of being an athlete that when it was taken, I lost a part of myself and didn't know how to respond.

I attempted to look on the bright side by being thankful for the unplanned time with family and friends from home. I tried to use the extra free time to accomplish some goals and tasks that I needed to complete like cleaning out my closet, painting my room, and organizing my computer files. I even started to accept the truth that COVID-19 was impacting everyone's life and stripping something away from each of us. But, it did not make the experience any easier as I still often asked the questions, "Why me?" and, "When will things be normal again?" I wanted to find joy in the situation and be content, but that was difficult to do when you are robbed of something you love so dearly and identify with so strongly.

I became aware that this was a common experience for athletes. Many of my teammates and friends were impacted negatively by the cancellation of the season. I had several discussions about mental health with peers and coaches during this time period and found that we all seemed to be struggling.

As the coronavirus began to spread more rapidly, the World Health Organization expressed its concern regarding the pandemic's consequences on mental health (World Health Organization, 2020b). The increased prevalence of quarantine and self-isolation led people to experience loneliness, anxiety, depression, insomnia, and engage in harmful alcohol and drug use, and self-harm or suicidal behavior (World Health Organization, 2020a). Social media became overloaded with rumors and unauthenticated information creating fear, anxiety, and stress (Kumar & Nayar, 2021). Health care professionals were working in a fearful and stressful environment where they were under the continuous threat of exposure and infection with COVID-19 (Kumar & Nayar, 2021). These factors are a just a few explanations for the rise in mental health issues as a result of the pandemic and are still a threat today. So, while a significant amount of research has been done to identify, test and treat the physical aspects of the coronavirus, human mental health deserves investigation as well.

Alongside the rise in mental health issues, COVID-19 has impacted other spheres of life such as the economy, industries, global market, agriculture, human health, and health care (Kumar & Nayar, 2021). The coronavirus devastated our entire world. Why should we care about what is going on in the lives of young, healthy college students who are privileged enough to play a collegiate sport when people are still being infected by this virus? Due to their age and good health, student athletes were not likely to be vulnerable to serious symptoms of the coronavirus infection itself, but this does not negate their experience during the pandemic. While it may not be projected on the news or discussed frequently throughout society, COVID-19 has had significant implications for social identity. Anyone who faced a threat to their identity as a result of the coronavirus experienced a legitimate struggle that likely involved some form of mental distress. This challenge, while unrelated to the typical COVID-19 symptoms, was

devastating for many and is important to bring into conversation. Worldwide shutdowns of workplaces, education systems, and other activities have threatened the identity of millions, leading to emotional responses.

As a budding scientist, I wanted to quantify these experiences and measure the impact that the pandemic had on student athletes specifically. As a softball player, I hoped to discover how my identification as an athlete impacted my response to this traumatic event. But most importantly, as a friend, I desired to provide support and validate the feelings and emotions my peers were experiencing throughout this season of uncertainty. These interests lead me to this thesis, in which I attempt to answer the question of how COVID-19 impacted athlete identity, at Regis specifically, and how Regis University student athletes responded cognitively and emotionally.

Chapter Two: The Athletic Identity and Cognitive Emotional Responses of Regis University Student Athletes in the Face of COVID-19

Literature Review

Identity is personally and socially constructed, so when outside factors cause a loss of that identity, it is common for someone to experience cognitive dissonance and identity disturbance (Godinic et al., 2020). Identity disturbance refers to the lack of continuity in self-image, confusion about oneself, uncertainty about aspirations, values, choices and long-term goals, including career plans (Godinic et al., 2020). Cognitive dissonance may occur when an individual who perceives their identity in a certain way is affected by the crisis and uncertainty to the extent that his current state contradicts his self-image (Godinic et al., 2020).

The development of both identity disturbance and cognitive dissonance have been prevalent in our society as a result of the spread and consequences of COVID-19, leading to possible mental disorders and social dysfunction (Godinic et al., 2020). This unfortunate phenomenon is not talked about as commonly as pathogenic infection of coronavirus but is unquestionably impacting the lives of many around the world, including individuals who have developed an athletic identity.

Athletic identity can be defined as the degree to which one identifies with the athletic role. For collegiate athletes, this can be a result of the time commitment that sports require, as many began playing their specific sport at a young age (Johnson & Migliaccio, 2009). It is difficult to quantify the specific amount of time that college athletes have dedicated to their sport over the span of their lifetime because the age at which they began playing, competition level, and number of sports played could vary between individuals. However, when a group of 24 Division I NCAA athletes were recruited to keep a weekly journal of their athletic time

commitment, they reported spending, on average, 31.25 hours per week on athletic related activities during the competition season (Ayers et al., 2012). The same group of student-athletes reported spending 9.87 hours per week on athletics in the off season (Ayers et al., 2012). These individuals' time-intense sports schedules could be evidence for the strong sense of athletic identity they have developed.

This athletic identity can be conceptualized as a social role and cognitive structure (Horton & Mack, 2000). Socially, athletic identity could be determined or emphasized by an individual's family, friends or coaches. Similarly, individuals can strengthen their athlete role by surrounding themselves with other athletes who relate to each other's schedules, experiences and interests (Stryker, 1980). As a cognitive structure, athletic identity provides a framework for interpreting information, determines how a person copes with situations, and inspires behavior consistent with the athlete role (Heird & Steinfeldt, 2013). This can be seen when athletes carry their teamwork, communication and time management skills into their life after sport participation.

The formation of an athletic identity in collegiate athletes can lead to both benefits and consequences. Athletic identity promotes positive benefits like a greater likelihood of long-term involvement in exercise (Fox & Corbin, 1989); enhanced body image and decreased anxiety (Horton & Mack, 2000); increased global self-esteem (Marsh et al., 1995); increased confidence and additional social relationships (Petitpas, 1978). While there are many obvious perks of participating in athletics and establishing an athlete role, research has also shown that overidentification with this role could lead to detrimental consequences. Some of these include adjustment difficulties following athletic retirement or sport injury and poor emotional well-being (Brewer et al., 1993; Hughes & Coakley, 1991; Kleiber & Brock, 1992; Stolenburg et al.,

2011). Similarly, maintaining a strong and exclusive athletic identity can produce problems in adjustment to sport-related transitions, like COVID-19 (Baillie & Danish, 1992; Blinde & Greendorfer, 1985; Pearson & Petitpas, 1990). Collegiate student athletes are at a greater risk for these struggles because it was predicted that both identity foreclosure, a premature commitment to an identity, and athletic identity would increase with level of sport involvement (Brewer, Van Raalte, & Linder, 1993; Petitpas, 1981). Collegiate student athletes compete at an extremely high level, increasing their likelihood of developing issues with identity foreclosure as a result of identifying exclusively with the athletic role.

In order to test the strength and possible exclusivity with the athletic role, Brewer and colleagues (1991) developed the Athletic Identity Measurement Scale (AIMS). Extensive amounts of research have shown the AIMS to be a sound instrument and valid measure of athletic identity (Brewer et al., 1993; Giannone et al., 2017; Griffith & Johnson, 2002). Implementing this tool has allowed researchers to discover that athletes with an exclusive athletic identity may have emotional difficulty adjusting to nonsport participation (Brewer et al., 1991). A newer study done by Giannone and colleagues (2017) found that athletic identity was associated with the emergence of anxiety symptoms in the months following retirement from sport and that by identifying exclusively with the athletic role during sport participation, an athlete's vulnerability to psychiatric distress after leaving the sport increased.

Based on this research, we would expect that in the early months of 2020 when the consequences of the coronavirus emerged in the United States, there were likely many student-athletes who were negatively impacted. On March 12, 2020 the National Collegiate Athletics Association (NCAA) cancelled championships for both winter and spring sports across all three divisions (National Collegiate Athletics Association, 2020). This type of change and disruption

to ordinary circumstances can potentially trigger feelings of anxiety, frustration, isolation and loneliness (YoungMinds, 2020; Zhai & Du, 2020). For those with a strong athletic identity, these negative feelings resulting from change and disruption might be exacerbated. In a group of 643 NCAA Division III athletes, 305 (44.73%) stated that they felt they lost their identity when the 2020 spring athletic season ended so abruptly (Bullard, 2020). The unexpected cancellation of athletics in early 2020 mimics the shocking experience many athletes endure when getting injured and forced to cease competition. When interviewed about their experience following a career-ending injury, professional cricket players admitted to feelings of shock, disbelief, disappointment and frustration because they could no longer play the game they loved (Arvinen-Barrow et al., 2019). This was most likely due to the extensive development of their athletic identity. As an athlete begins to build an identity around their role in competitive sports, the physical inability to participate can lead to legitimate psychological concerns (Luzzo, 2000). When considering the abrupt cancellation of the 2020 athletic season, athletes essentially experienced a simultaneous injury. This traumatic event led many student-athletes to question their identity and search for coping mechanisms as a whole, allowing for potential normalization and a greater sense of community support (Costa et al., 2020).

Introduction to Study

The Cognitive Emotion Regulation Questionnaire (CERQ) is a tool to assess people's cognitive emotional regulation strategies in response to negative life events (Garnefski et al., 2001). Research using this questionnaire has found people use more adaptive strategies (i.e., positive refocusing, positive reappraisal, putting into perspective, refocus on planning and acceptance) more often than the less adaptive strategies (i.e., rumination, self-blame, blaming others and catastrophizing) when presented with a threatening or stressful life event (Garnefski et

al., 2001). However, a study done with Italian athletes found that those who reported a higher athletic identity tended to ruminate and catastrophize in response to cancellation of competition due to the COVID-19 lockdown compared to those with a lower athletic identity, indicating a less adaptive response (Costa et al., 2020). The unique relationship between one's athletic identity and emotional responses to traumatic events, like COVID-19, is one that requires more research and will be better understood following the completion of this study with current Regis University Athletes.

Regis University is a private, Jesuit institution in Denver, CO with an undergraduate enrollment of about 3,200 students. The Regis athletic department is a part of the National Collegiate Athletics Association and consists of approximately 265 student athletes and 12 competing teams; baseball, men's and women's basketball, men's and women's cross country, men's and women's golf, men's and women's soccer, softball, lacrosse and volleyball. Being a member of the Division II Rocky Mountain Athletic Conference, student athletes travel and compete against schools in Colorado, Nebraska, New Mexico, South Dakota and Utah.

The purpose of this study is to investigate the correlation between Regis student-athlete's athletic identity and cognitive emotional responses following the cancellation of the 2020 spring competition season. Using both the Athletic Identity Measurement Scale and the Cognitive Emotion Response Questionnaire, I predict that Regis student-athletes with higher measured athletic identity scores will implement less adaptive cognitive emotional strategies in response to COVID-19 and its implications on NCAA competition seasons. Additionally, after speaking with my teammates and peers about their devastation in response to the season cancellation, I hypothesize that Regis University student athletes implemented more negative responses than

positive responses. These results could inform undergraduate student athletes on the possible negative consequences of developing an exclusive athletic identity.

Materials and Methods

Participants

I surveyed a sample of 71 Regis University Athletes (*n*=27 women, *n*=44 men) for the present study. Participants came from both individual (golf) and team sports (baseball, softball, lacrosse). Inclusion criteria were as follows: (a) current participation in a Regis University varsity sport, (b) participation in a sport that was cancelled in 2020 due to COVID-19 at the high school or collegiate level and (c) age of at least 18 years or older. Given these criteria, collegiate athletes from the class of 2020 and other who have since graduated (e.g., class of 2021) were systematically excluded. All procedures were approved by the Regis University Institution Review Board.

Measures

Athletic Identity Measurement Scale. I used the Athletic Identity Measurement Scale (AIMS; Appendix A) as a self-report measure to assess the strength and exclusivity of identification with the athlete role (Brewer et al., 1993). The ten-item scale is scored from 1 (completely disagree) to 7 (completely agree). A higher score indicates a stronger, more exclusive identification with the athletic role.

Cognitive Emotional Regulation Scale. The Cognitive Emotional Regulation Questionnaire (CERQ) evaluates nine cognitive emotional regulation strategies: positive reappraisal, putting into perspective, positive refocusing, refocus on planning, acceptance, self-blame, blaming others, rumination, and catastrophizing (Garnefski & Kraaij, 2007; Appendix B). It is composed of four items per cognitive strategy (36 items total) and is scored on a Likert scale

ranging from 1 (almost never) to 5 (almost always). I obtained results by summing the scores of each individual subscale. The total possible scores for each subscale could range from 4 to 20. A higher score in a specific cognitive strategy section suggests a greater likelihood for individuals to use that strategy.

Procedure

I recruited participants to complete the study while attending preseason compliance meetings at Regis University in Fall 2022. At this time, I reminded student athletes that the requirements for participation were being 18 years or older and participating in a sport that was cancelled in the spring of 2020 due to COVID-19 at the high school or collegiate level. After providing consent (Appendix C), participants completed the anonymous online survey via Qualtrics software (Qualtrics, Provo, UT). The questionnaire consisted of the Athletic Identity Measurement Scale, Cognitive Emotional Response Questionnaire, and a demographic survey to assess participants' sports and academic class (Appendix D).

Data Analyses

Following the completion of the survey, I extracted, cleaned and analyzed the data collected. In order for a response to be considered for the final sample data, the respondent must have completed the Athletic Identity Measurement Scale survey in its entirety. The respondent must have provided responses for three out of four items of each Cognitive Emotional Response Questionnaire subscale section. If a participant failed to complete one of the four items of a particular subscale, the item was replaced using the mean replacement method (Organisation for Economic Co-operation and Development, 2002). Once I cleaned the data in this way, I ran a Pearson correlation test to explore the relationship between athletic identity and cognitive emotional responses to COVID-19 in Regis University student athletes. I compared individuals

measured athletic identity to each subscale of the Cognitive Emotional Regulation Questionnaire. Additionally, I compared the individual subscales to one another to study their similarities. I calculated and analyzed Pearson *r* values for each of these correlation tests. Lastly, I ran ANOVA statistical tests to compare the mean values of athletic identity and each cognitive emotional subscale between Regis University athletic classes.

Results

The mean values and standard deviations for measured athletic identity and each cognitive emotional subscale score are displayed in Table 2. This table indicates that the mean athletic identity score for Regis University student athletes was 52.63 (on a scale from 0-70) with a standard deviation of 7.25 points. This data are also depicted graphically in Figure 1. In regard to cognitive emotional responses, Table 2 reveals that acceptance, focus on thought/rumination, positive reappraisal, and putting into perspective were the most common cognitive emotional responses to the cancellation of the 2020 athletic season. The least common responses to this event were self-blame, catastrophizing, and other blame.

Demographic information describing participants' athletic year and sport are given in Table 1. The results of the correlation statistical tests are displayed in Table 2. Examination of these Pearson *r* values show only low or weak correlations between athletic identity and cognitive emotional responses (r's ≤ 0.35). Therefore, the extent to which a student identified as an athlete was unrelated to use of particular cognitive emotional regulation methods. Table 2 also indicates a low correlation (r's = 0.36-0.67) between the CERQ subscales self-blame and refocusing on planning (r=0.507), self-blame and focus on thought/rumination (r=0.517), focus on thought/rumination and refocus on planning (r=0.673), refocus on planning and catastrophizing (r=0.420), putting into perspective and positive reappraisal (r=0.646). There was

a moderate correlation ($r's \geq 0.68$) was found between the CERQ subscale self-blame and the CERQ subscale catastrophizing.

The mean values and standard deviations of measured athletic identity and each cognitive emotional subscale score divided by athletic class are given in Table 3. Athletic Identity was highest among the sophomore class (i.e. those who were seniors in high school in spring 2020). The freshman class showed the highest mean score for the refocus on planning cognitive emotional strategy. The sophomore class displayed the highest mean score for self-blame, positive reappraisal, and other blame. The greatest mean score for positive refocusing was shown in the Regis junior class (i.e. those who were first year Regis students in spring 2020). Seniors had the highest mean score in focus on thought/rumination. Lastly, Regis University graduate students displayed the greatest mean score in the cognitive emotion responses acceptance and putting into perspective.

ANOVA results comparing the mean values for measured athletic identity and each cognitive emotional subscale are given in Table 4. This table indicates no significant difference in Athletic Identity between athletic classes as every p-value was greater than the significance level of 0.05. Similarly, there was no significant difference in cognitive emotional regulation strategies between athletic classes. These results reveal that Athletic Identity and the cognitive emotional regulation methods employed by Regis student athletes were similar among athletic classes.

Discussion

The goal of this study was to understand the ways in which Regis University student athletes responded to the cancellation of the 2020 athletic competition season. My hypothesis was that student athletes who have a higher measured Athletic Identity would have experienced

less adaptive cognitive and emotional responses (i.e., higher scores on rumination, self-blame, catastrophizing and other blame) than student-athletes who have lower measured Athletic Identities. This was not supported by the data as there was no evidence of moderate or strong correlations between Athletic Identity and any specific cognitive emotional strategy. This is surprising considering the literature previously found that athletes with a higher Athletic Identity tended to ruminate and catastrophize more often, therefore utilizing less adaptive cognitive emotional responses (Costa et al., 2020). However, this previous study included a significant number of athletes (1,125 participants) competing at various levels and in different age groups, likely developing a wide range of athletic identity measurements.

Explanation for the Lack of a Relationship Between Athletic Identity and Regulation Strategies

In studying a limited number of Regis University athletes, there was likely a narrower range of scores. This occurrence is displayed in Figure 1 as the graphical points were compact showing similar measured athletic identity scores. ANOVA results comparing athletic identity means between each athletic class also indicated no significant difference. These results reveal that each Regis University athletic class showed similar athletic identities and cognitive emotional responses to the cancellation of their 2020 season, potentially leading to the lack of significant relationship between athletic identity and each cognitive emotional subscale.

Another potential explanation for weak correlations between Athletic Identity and less adaptive cognitive emotional responses could be that student-athletes enjoyed exploring alternate roles during the pandemic. The shutdown of college sports was a major threat to many individuals' role as an athlete, but student athletes, like many others, take on many different identities. Student and athlete identities are the obvious ones, but we are also brothers, sisters, friends and employees. These roles are discussed in a study done on track and field athletes who

compete at both the Division I and the Division III level. This specific study found that both groups of athletes reported that the athletic life role was not as prominent as other life roles, such as friendships, romantic relationships, academics, and family (Griffith & Johnson, 2002). The opportunity for these individuals to explore and participate in alternate identities during the COVID-19 shutdown could have been shared among all student-athletes, including those at Regis.

This study focuses on Regis student-athletes who reported to identify strongly with the athlete role, but other identities should still be considered. These identities may not have the same impact on cognitive and emotional well-being, but they are important aspects of an individuals' life that could have moderated the challenge of losing the athlete role. The ability for Regis student-athletes to explore these alternate life roles could explain the lack of a strong relationship between an individuals' athletic identity and cognitive emotional response to COVID-19.

Explanation for the Utilization of Positive Regulation Methods

Data also showed that Regis student-athletes commonly utilized the acceptance, positive reappraisal, focus on thought/rumination, and putting into perspective techniques. In other words, participants of the study practiced "more adaptive" strategies more often than the "less adaptive" strategies among participants of the study. This result was surprising considering the devastation many of my peers and I described when COVID-19 caused the season cancellation. One possibility for this finding is that many student-athletes had their attention focused on more significant concerns than their sport. The spring of 2020 was a chaotic and stress-inducing time for the entire world. COVID-19 was being transmitted rapidly, schools and workplaces were transitioning to online platforms, and billions of people were quarantining. Everyone's world

was flipped upside down and the “new normal” was being established. Student-athletes were a part of this catastrophic event, so it is not irrational to assume that they may have focused on more than just their sport during this time.

While still a traumatic event, an injury or athletic retirement cannot compare to the scale of a global pandemic. A number of authors have reported that the emotional consequences of athletic injury are particularly strong when an individual maintains an exclusive athlete role (Little, 1969). An athlete’s removal from their sport due to injury is challenging, but likely incomparable to the severity of COVID-19. Student-athletes whose seasons were cancelled as a result of the global pandemic might have had more responsibilities arise (e.g., family job loss or eviction) and/or family concerns (e.g., illness). The termination of the athletic season could have allowed them the time and energy to focus on these arguably more important concerns, explaining the more adaptive cognitive emotional regulation strategies being used.

Similarly, student-athletes may have had a positive approach to the cancellation of their season because it was a concrete decision during a time of so much uncertainty. In the spring of 2020, rules and policies involving the coronavirus were constantly changing. The nature of the virus was being researched and new information on the status and impact of its transmission was being released every day. Similarly, the rules and regulations for isolation, social distancing, and other preventative tactics were regularly altered. The cancellation of NCAA Division II athletics could have been one of the only indisputable decisions in the Regis student-athlete’s lives at the time. This consistency could have been a source of peace and positivity to these athletes, leading them to more adaptive coping strategies.

Another potential explanation for the more adaptive responses from Regis University athletes could have been a result of the participants’ class status during the year of 2020. Student

athletes who qualified to complete this study were required to be Regis students at the time of survey completion. This means that when the 2020 spring athletic season was cancelled, every participant was aware that they still had at least one remaining year of collegiate eligibility, if not several more years. Therefore, the experience of these student-athletes is incomparable to those who were participating in their last season when it was cancelled. With the belief that they would have the opportunity to return to their sport the following year, Regis student-athletes may have had a more positive outlook on the season cancellation. Their athletic identity was not inconclusively stripped from them, but rather just temporarily taken or paused, potentially leading them to utilize the more adaptive cognitive emotional strategies like acceptance, positive reappraisal, and putting into perspective. ANOVA results indicated non-significant differences in athletic identities and cognitive emotional responses between each athletic class that participated in this study. This finding shows that each class had a similar experience and therefore all displayed adaptive responses.

Lastly, while it is difficult to measure, many student athletes, despite having a strong athletic identity, could have been relieved that their season was cancelled. This could be for any number of non-COVID reasons; fatigue, burnout, a difficult class schedule, homesickness, etc. Regardless of one's strength of athletic identity, enjoyment of the sport itself varies. I have played with teammates who describe their experiences in athletics as miserable, but still hold strongly to their role as an athlete. Being a student-athlete is challenging. It is an amazing experience that allows for incredible growth and learning, but also consists of early mornings, late nights, sacrificing social time, blood, sweat, tears and lots and lots of failure. An individual who might have been feeling burdened and stressed about their sport during the spring of 2020

could have viewed the cancellation of the remainder of the season as a blessing and a chance to rest and recharge rather than as a loss of opportunity or identity.

Study Limitations and Future Studies

Further investigation into this topic is needed. The reported results were obtained from a sample size of 71 Regis student athletes out of potentially 100 eligible participants. It is possible that the 29 individuals who did not complete the survey could have swayed the results in some way. Similarly, the 71 data entries were a part of 82 surveys that had been started but were not completed. This suggests an 86.6% completion rate and could contribute to an inaccurate reflection of Regis' student athletes' experiences. Individuals who were more negatively impacted by the COVID-19 shutdown could have been hesitant to start or complete the survey because they did not want to relive the unfortunate experience. It would be beneficial to complete this study with a larger group of individuals.

Similar data inaccuracies could have been a result of the retrospective format of the study. Regis student-athletes were asked to reflect on their feelings and cognitive emotional responses from an event that occurred in the past. Participants filled out the survey in August of 2021 but were asked to recall their experiences from the NCAA season cancellation in March of 2020. The time in between these two events was about 1.5 years, so there was a Student-athletes could have struggled to accurately remember their response to the season cancellation due to the extended period of time in between that event and completing the survey, leading to flawed data.

Another major limitation of this study was the inability to obtain responses from student athletes at other universities across various NCAA Divisions. One could argue that this research performed at Regis is not as impactful as it was done on student-athletes who compete at a Division II level, compared to athletes who perform at Division I or professional levels. This

argument implies that athletes who participate in sports at a higher competition level are more entitled to experiencing a loss of identity because they are more skilled or that somehow the experience of Regis athletes doesn't generalize to the experiences of other athletes.

While Regis University, a Division II institution, is home to a unique population of student-athletes, researchers found that Division I and Division II athletes report similar measured athletic identities (Huml, 2018). This similarity is likely due to the degree of time required of student athletes for athletic commitments (Huml, 2018). The comparable levels of measured athletic identity indicate that athletes at both Division I and Division II schools had similar experiences of "identity crisis" when COVID-19 altered the regular athletics structure. Division II athletes at a university in the Midwest claimed that COVID-19 had an impact on their mental health (Balliu, 2021). The same can be seen at the Division III level. A study conducted with student athletes from the New Jersey Athletic Conference, a Division III conference, found that consequences of COVID-19 brought on increased feelings of stress and helplessness as well as decreased levels of motivation for those students as well (Bullard, 2020). These findings demonstrate that student-athletes who compete at lower levels were similarly impacted by the coronavirus pandemic. Regardless of competition level, individuals who have developed an identity surrounding their role as an athlete would be affected by a threat to that identity.

Despite these limitations, the obtained results allowed for a greater understanding of the student athlete experience following the introduction and spread of the coronavirus at one particular university. By researching Regis University athletes, we gained valuable knowledge on the experience of a unique population. If I were to personally continue this research, I would be interested in studying the the athletic identity and corresponding cognitive emotional

responses across various levels of athletics to determine if competition level was a factor for varying responses to the pandemic.

In addition to studying athletes across competition levels, I would like to utilize the Cognitive Emotion Regulation Questionnaire to test the responses of collegiate student athletes to their non-athlete counterparts. While the loss of identity was likely difficult for student athletes, their participation in activities like exercise, regular sleep, engagement in social connections, and practicing healthy eating habits could have aided in their response to COVID-19 and the season cancellation. From my experience interacting with non-athlete students, I have found that these stress relieving activities are implemented less into their everyday lives. It would be interesting to discover if habits and activities employed by athletes aided in their transition out of sports during the global pandemic.

Implications of COVID-19 for Professional Athletes

It would be beneficial to expand this research to athletes who compete at the professional level. The International Federation of Professional Footballers, FIFPRO, conducted a study with professional soccer players to gain insight on their reactions to COVID-19 and the period of home confinement it caused. Researchers found that between March 22 and April 14 of 2020, the percentage of professional soccer players reporting symptoms of depression doubled (FIFPRO, 2020). Also, out of 1602 players surveyed, 18% of the women players and 13% of men players reported symptoms consistent with a diagnosis of generalized anxiety (FIFPRO, 2020). These unfortunate statistics indicate that professional athletes also experienced adverse consequences to the implications of the coronavirus.

At the professional level, athletes have made a long-term commitment to athletic excellence at the highest possible level, making the possibility for exploring alternate roles

uncommon (Nesti & Littlewood, 2011). The development of a singular identity surrounding the athlete role is counterproductive during a pandemic that requires social isolation (Nesti & Littlewood, 2011). As we have seen, the development of a narrow athletic identity is dangerous in that a threat to that identity can lead to a greater possibility of anxiety, depression, addictions and other mental health concerns (Henriksen et al., 2019). The intense focus that many professional athletes place on their sport could contribute to these injurious responses to events that threaten that identity, like COVID-19.

Professional athletes also derive employment from their sporting activities (Schinke et al., 2020). Unlike athletes who compete at the recreational or collegiate level, professional athletes get paid for participation. The financial aspect of athletics complicates one's athletic identity in that an individual who receives compensation for their performance likely relies on their sport to survive and make a living. Consequently, the emphasis professional athletes place on an athletic identity is often heavily weighed, perhaps disproportionately (Henriksen et al., 2019). Depending on an athlete's sport, the financial peril one experienced as a result of the pandemic could have been mild or severe. For example, a boxer is compensated after each bout, so when COVID-19 led to the cancellation of boxing events, those athletes were no longer receiving income (Henriksen et al., 2019). Individuals who rely on this form of revenue, experienced an added element of stress due to COVID-19 (Henriksen et al., 2019). This challenge that is unique to professional athletes, could contribute to the mental health struggles that these individuals experienced.

Another interesting dimension of professional sports is the improved social status that many professional athletes experience. The high-profile ranking and media constructs of athletes who compete at the highest level can lead to portrayal of these individuals as sporting heroes,

contributing to a heightened athletic identity (Lines, 2001). In a study done on retired professional football players in the United Kingdom, researchers discovered that athletic identity was associated with depressive symptoms following retirement (Sanders & Stevinson, 2017). A valid argument for the development of their athletic identity could be their reputation as an elite athlete. The potential for an athlete to increase their social status as a result of their sport performance is exaggerated in professional athletes but is not uncommon at lower competition levels either. At the college level, Division I athletes are glorified on television and social media. At the high school level, talented athletes are stereotypically viewed as the popular kids at school. Whether an athlete performs at the professional level or not, the improvement of their social status due to their role as an athlete could contribute to a stronger measured athletic identity (Kuettel et al., 2017). This relationship provides further explanation for the difficulties athletes face when adjusting to a different lifestyle after athletic retirement (Kuettel et al., 2017). The expansion of the present study to professional athletes could offer a broader understanding of athletic identity across various competition levels.

Conclusion

We are living in a time of extraordinary uncertainty and while athletes make up a small population of those who have been affected by the coronavirus, their story matters. As a member of this community, I can attest to the feelings of despair and hopelessness that accompanied COVID-19 related issues. I experienced these emotions because of my identity as an athlete, alongside millions of others who experienced these emotions because of their own athletic identity, but the fact that we see a population of collegiate athletes who exhibited strong coping skills amidst the craziness of the global pandemic is positive news. This finding is encouraging because the more adaptive cognitive emotional strategies utilized by Regis student-athletes could

potentially aid in their ability to transition out of the athletic role when retirement occurs. The opportunity for these athletes to explore alternate roles and have time for themselves could have been exactly what they needed to prepare for the time when they will no longer play the sport they love.

Chapter Three: The Positives That Came from the Pandemic

Engaging in this writing process, I have gotten to reflect on my own experience as an athlete who lived through the COVID-19 global pandemic. In the moment, the cancellation of my softball season in 2020 was devastating and brought on many challenges. Not only did I miss my teammates and playing the game I loved, but I also questioned my identity apart from my sport. However, after much reflection, I realized that there were many positives that came from the pandemic. I truly learned to cherish my time playing softball but have fell in love with life as a whole. When I wasn't restricted to the intense schedule of college athletics, I got the chance to find excitement in other areas of life; church, family, nature, etc. So, while I did struggle with feelings of identity loss, COVID-19 allowed me to experience life to the fullest and establish roles and passions outside of my athletic identity.

I also realized that my athletic identity was a contributing factor in coping with the loss of my sport. The habits I have built throughout my athletic career (e.g., regular exercise, consistent sleep patterns, choosing nutritious food options, and prioritizing social connections) aided in my ability to maintain a strong mental health throughout quarantine. I am grateful for my identity as an athlete as it has afforded me lifelong lessons and practices that will benefit me in various situations. I hope that by sharing my story and this research, other athletes will feel encouraged to reflect on their own identities and how they were impacted by COVID-19.

References

Ayers, K., Pazmino-Cevallos, M., & Dobose, C. (2012). The 20-hour rule: Student-athletes time commitment to athletics and academics. *Virginia Journal*, *33*(1), 22-27.

Baillie, P. H. F., & Danish, S. J. (1992). Understanding the Career Transition of Athletes. *Sport Psychologist*, 6(1), 77-98.

Balliu, J. (2021). *COVID-19's Influence on Mental Health Among Collegiate Student-Athletes.* (Master's Dissertation) https://openriver.winona.edu/leadershipeducationcapstones/53/

Blinde, E. M., & Greendorfer, S. L. (1985). A reconceptualization of the process of leaving the role of competitive athlete. *International Review of Sport Sociology*, 20(1/2), 87-91

Brewer, B.W., Van Raalte, J.L., & Linder, D.E. (1991). Construct validity of the Athletic Identity Measurement Scale. Paper presented at the North American Society for the Psychology of Sport and Physical Activity annual conference, Monterey, CA.

Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel?. *International journal of sport psychology*.

Bullard, J. B. (2020). The impact of COVID-19 on the well-being of division III student-athletes. *The Sport Journal*, *22*(5), 1543-9518.

Costa, S., Santi, G., di Fronso, S., Montesano, C., Di Gruttola, F., Ciofi, E. G., ... & Bertollo, M. (2020). Athletes and adversities: athletic identity and emotional regulation in time of COVID-19. *Sport sciences for health*, *16*(4), 609-618. https://doi.org.dml.regis.edu/10.1007/s11332-020-00677-9

FIFPRO. (2020, April). World Players Union. https://www.fifpro.org/en/health/coronavirus-shutdown-sharp-rise-inplayers-reporting-depression-symptoms

Fox, K. R., & Corbin, C. B. (1989). The physical self-perception profile: Development and preliminary validation. *Journal of Sport and Exercise Psychology*, 11(4), 408-430.

Garnefski, N., & Kraaij, V. (2007). The cognitive emotion regulation questionnaire. *European journal of psychological assessment*, *23*(3), 141-149. https://doi.org/10.1027/1015-5759.23.3.141

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual differences*, *30*(8), 1311-1327. https://doi.org/10.1016/S0191-8869(00)00113-6

Giannone, Z. A., Haney, C. J., Kealy, D., & Ogrodniczuk, J. S. (2017). Athletic identity and psychiatric symptoms following retirement from varsity sports. *International Journal of Social Psychiatry*, *63*(7), 598-601. https://doi.org/10.1177/0020764017724184

Godinic, D., Obrenovic, B. (2020). Effects of economic uncertainty on mental health in the COVID-19 pandemic context: social identity disturbance, job uncertainty and psychological well-being model. *International Journal of Innovation and Economic Development 6*(1), 61-74. http://dx.doi.org/10.18775/ijied.1849-7551-7020.2015.61.2005

Griffith, K. A., & Johnson, K. A. (2002). Athletic identity and life roles of Division I and Division III collegiate athletes. *Journal of Undergraduate Research*, 5(1), 225-231.

Heird, E. B., & Steinfeldt, J. A. (2013). An interpersonal psychotherapy approach to counseling student athletes: Clinical implications of athletic identity. *Journal of College Counseling*, *16*(2), 143-157. https://doi.org/10.1002/j.2161-1882.2013.00033.x

Henriksen, K., Schinke, R. J., Moesch, K., McCann, S., Parham, W. D., Larsen, C. H., & Terry,

P. (2019). Consensus statement on improving the mental health of high-performance athletes. International Journal of Sport and Exercise Psychology, https://doi.org/10.1080/1612197X.2019.1570473

Horton, R. S., & Mack, D. E. (2000). Athletic identity in marathon runners: Functional focus or dysfunctional commitment? *Journal of Sport Behavior*, 23(2), 101-119.

Hughes, R., & Coakley, J. (1991). Positive deviance among athletes: The implications of over conformity to the sport ethic. *Sociology of Sport Journal*, 8(4), 307– 325.

Huml, M. R. (2018). A factor structure examination of athletic identity related to NCAA divisional differences. *Journal of College Student Development*, *59*(3), 376-381. https://doi.org/10.1353/csd.2018.0035

Johnson, T. S., & Migliaccio, T. A. (2009). The social construction of an athlete: African American boy's experience in sport. *Western Journal of Black Studies,* 33(2), 98-109.

Kleiber, D. A., & Brock, S. C. (1992). The effect of career-ending injuries on the subsequent well-being of elite college athletes. *Sociology of Sport Journal*, *9*(1), 70-75. https://doi.org/10.1123/ssj.9.1.70

Kuettel, A., Boyle, E., & Schmid, J. (2017). Factors contributing to the quality of the transition out of elite sports in Swiss, Danish, and Polish athletes. Psychology of Sport and Exercise, 29, 27-39. https://doi.org/10.1016/j.psychsport.2016.11.008

Kumar, A., & Nayar, K. R. (2021). COVID 19 and its mental health consequences. *Journal of Mental Health*, *30*(1), 1-2. https://doi.org/10.1080/09638237.2020.1757052

Lines, G. (2001). Villains, fools or heroes? Sports stars as role models for young people. *Leisure Studies*, 20(4), 285–303. https://doi.org/10.1080/02614360110094661

Little, J. C. (1969). The athlete's neurosis: A deprivation crisis. *Acta Psychiatrica Scandinavia*,

45(2), 187-197. https://doi.org/10.1111/j.1600-0447.1969.tb10373.x

Luzzo, D. A. E. (2000). *Career counseling of college students: An empirical guide to strategies that work.* American Psychological Association.

Marsh, H. W., Perry, C., Horsely, C., &Roche, L. (1995). Multidimensional self-concepts of elite athletes: How do they differ from the general population? *Journal of Sport and Exercise Psychology*, 17(1), 70-83. https://doi.org/10.1123/jsep.17.1.70

National Collegiate Athletics Association. (2020). *NCAA Student-Athlete Well-Being Study*. https://www.ncaa.org/sports/2020/5/22/ncaa-student-athlete-well-being-study.aspx

Nesti, M., & Littlewood, M. (2011). Making your way in the game: Boundary situations in England's professional football world. In D. Gilbourne, & M. B. Andersen (Eds.), Critical essays in applied sport psychology (pp. 233– 249). Human Kinetics.

Organisation for Economic Co-operation and Development. (2002, May 26). *Sampling With Replacement.* https://stats.oecd.org/glossary/detail.asp?ID=3835

Pearson. R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventive perspectives. *Journal of Counseling and Development*, 69(1), 7-10.

Petitpas, A. J. (1978). Identity foreclosure: A unique challenge. *The Personnel and Guidance Journal*, 56(9), 558-561.https://doi.org/10.1002/j.2164-4918.1978.tb05310.x

Petitpas. A. (1981). *The identity development of the male intercollegiate athlete* [Doctoral Dissertation, Boston University School of Education]. ProQuest Dissertations and Theses Global.

Sanders, G., & Stevinson, C. (2017). Associations between retirement reasons, chronic pain, athletic identity, and depressive symptoms among former professional footballers. *European Journal of Sport Science*, *17*(10), 1311-1318. https://doi.org/10.1080/17461391.2017.1371795

Schinke, R. J., Hanrahan, S. J., & Catina, P. (2009). Introduction to cultural sport psychology. In R. J. Schinke, & S. J. Hanrahan (Eds.), Cultural sport psychology (pp. 3–13). Human Kinetics.

Stoltenburg, A. L., Kamphoff, C. S., & Bremer, K. L. (2011). Transitioning out of sport: the psychosocial effects of collegiate athletes' career-ending injuries. *Athletic Insight: The Online Journal of Sport Psychology*, *13*(2). https://doi.org/10.1123/jcsp.2016-0012

Taylor, R. (1990). Interpretation of the correlation coefficient: a basic review. *Journal of diagnostic medical sonography*, *6*(1), 35-39.

World Health Organization. (2020a). *Mental health and COVID-19.* World Health Organization Regional Office for Europe. https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/publications-and-technical-guidance/mental-health-and-covid-19

World Health Orgnization. (2020b). Mental health and psychosocial considerations during the COVID-19 outbreak. World Health Organization. https://www.who.int/docs/default-source/coronaviruse/mental-health-considerations.pdf

YoungMinds. (2020, March). Coronavirus: Impact on young people with mental health needs. YoungMinds. https://www.youngminds.org.uk/media/xq2dnc0d/youngminds-coronavirus-report-march2020.pdf

Zhai, Y., & Du, X. (2020). Addressing collegiate mental health amid COVID-19 pandemic.

Psychiatry Research, 288, 113003. https://doi.org/10.1016/j.psychres.2020.113003

Table 1

Participants' Year in School and Sport

Athletic Class Standing		*n* (%)
	Freshman	12 (16.90%)
	Sophomore	19 (26.80%)
	Junior	11 (15.50%)
	Senior	23 (32.40%)
	Graduate Student	6 (8.40%)
Sport		*n* (%)
	Baseball	42 (59.20%)
	Softball	14 (19.70%)
	Lacrosse	11 (15.50%)
	Women's Golf	2 (2.80%)
	Men's Golf	2 (2.80%)

Note. This table displays respondents' current athletic class standing and participating sport. The number of submissions from each demographic category are listed along with the corresponding percent of total sample (*N*=71).

Table 2

Correlation Coefficients (*r* values) of Athletic Identity and Cognitive Emotional Regulation Subscales

	Mean (SD)	**Score Range**	**CERQ:** Self-Blame	Acceptance	Focus on Thought/ Rumination	Positive Refocusing	Refocus on Planning	Positive Reappraisal	Putting into Perspective	Catastrophizing	Other-Blame
Athletic Identity Measurement Scale (AIMS)	52.63 (7.25)	37 to 69	0.318	0.133	0.112	-0.151	-0.066	-0.094	-0.146	0.337	0.341
Cognitive Emotional Regulation Questionnaire (CERQ)											
Self-Blame	7.81 (4.27)	4 to 20	x	0.155	0.517	0.016	0.507	-0.32	-0.31	0.745	0.053
Acceptance	15.09 (3.40)	8 to 20	x	x	0.187	0.13	0.04	0.134	0.08	-0.084	0.155
Focus on thought/ Rumination	14.13 (4.09)	4 to 20	x	x	x	0.044	0.673	-0.181	-0.274	0.493	0.28
Positive Refocusing	12.77 (3.92)	4 to 20	x	x	x	x	0.33	0.275	0.007	-0.106	-0.059
Refocus on Planning	12.50 (3.52)	4 to 20	x	x	x	x	x	0.119	0.017	0.42	-0.041
Positive Reappraisal	14.17 (3.61)	4 to 20	x	x	x	x	x	x	0.646	-0.227	-0.178
Putting into Perspective	14.12 (3.89)	4 to 20	x	x	x	x	x	x	x	-0.271	-0.258
Catastrophizing	10.24 (3.72)	4 to 20	x	x	x	x	x	x	x	x	0.074
Other Blame	10.49 (4.13)	4 to 20	x	x	x	x	x	x	x	x	x

Note. Measured mean values, standard deviations, and score ranges of Athletic Identity and Cognitive Emotion Regulation subscales are given in Table 2. Measured correlation coefficients (*r* values) from correlation tests comparing Athletic Identity to each cognitive emotional subscale. Pearson *r* values of subscales compared to one another are also given (e.g. correlation between self-blame and acceptance). Weak correlations are described by Pearson *r* values ≤ 0.35, low correlations when $r=0.36$-0.67, and moderate Cognitive Emotion Regulation subscales are given in Table 3.

Table 3

Mean Values and Standard Deviations of Measured Athletic Identities and Cognitive Emotional Subscales Between Athletic Classes

	Freshman	Sophomore	Junior	Senior	Graduate Student
Athletic Identity Measurement Scale (AIMS)	51.92 (5.45)	55.37 (8.07)	53.73 (6.25)	50.87 (7.29)	49.67 (7.28)
Self-Blame	9.38 (5.15)	8.24 (3.72)	15.36 (3.72)	14.65 (3.35)	16.17 (2.48)
Acceptance	14 (3.13)	15.73 (3.83)	15.36 (3.72)	14.65 (3.35)	16.17 (2.48)
Focus on Thought/ Rumination	13.2 (4.13)	12.87 (4.60)	12.49 (3.75)	14.21 (3.90)	10.5 (3.62)
Positive Refocusing	12.89 (4.46)	13.29 (3.97)	14.12 (2.65)	12.06 (3.86)	11.33 (5.28)
Refocus on Planning	13.2 (3.74	12.14 (3.55)	12.78 (2.95)	12.78 (3.14)	10.78 (5.31)
Positive Reappraisal	13.17 (3.84)	15.33 (3.51)	13.9 (4.15)	13.73 (3.28)	14.67 (3.98)
Putting into Perspective	14.2 (2.90)	14.23 (4.33)	14.5 (3.24)	13.21 (4.49)	16 (3.63)

Catastrophizing	12 (2.28)	10.36 (3.69)	10.18 (4.27)	10.32 (4.01)	7.17 (2.56)
Other Blame	10.95 (4.25)	11 (4.25)	9.45 (3.91)	10.67 (5.12)	10 (1.10)

Note. Measured mean values and standard deviations of Athletic Identity and Cognitive Emotion Regulation subscales in each Regis University athletic class are given in Table 3.

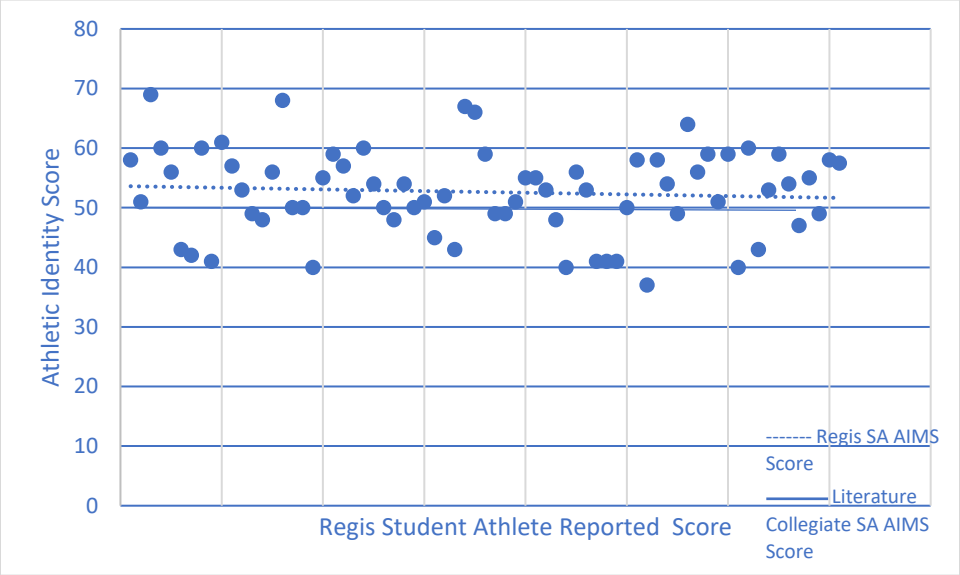
Table 4

Athletic Identity and Cognitive Emotion Regulation Subscales Between Athletic Class ANOVA Results

	***df* (between groups)**	***df* (within groups)**	***F***	***p***
AIMS	4	67	1.45	0.23
Self-Blame	4	47	0.97	0.43
Acceptance	4	56	0.62	0.65
Focus on Thought/Rumination	4	53	1	0.41
Positive Refocusing	4	49	0.67	0.62
Refocus on Planning	4	50	0.52	0.72
Positive Reappraisal	4	51	0.62	0.65
Putting into Perspective	4	53	0.62	0.64
Catastrophizing	4	53	1.6	0.19
Other Blame	4	45	0.22	0.93

Note. ANOVA results comparing the mean values for Athletic Identity and Cognitive Emotion Regulation subscales in each Regis University athletic class are given in Table 5. No results were significant at the $p < .05$ level.

Figure 1.



Athletic Identity Scores for Regis University Athletes

Note. This figure displays the athletic identity scores using the Athletic Identity Measurement Scale. An individual participants' score is indicated by a graphical point. Dotted line of best fit is descriptive of the average athletic identity scores of Regis student athletes. Solid line of best fit indicates the average athletic identity score for college student-athletes (Brewer, 1993).

Appendices

Appendix A

Athletic Identity Measurement Scale

Please mark an "x" in the space that best reflects the extent to which you agree or disagree with each statement in relation to your own sports participation.

1. I consider myself an athlete.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

2. I have many goals related to my sport.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

3. Most of my friends are athletes.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

4. My sport is the most important part of my life.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

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

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

6. I need to participate in my sport to feel good about myself.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

7. Other people see me mainly as an athlete.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

8. I feel bad about myself when I do poorly in my sport.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

9. My sport is the only important thing in my life.

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

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

Strongly Agree :_____:_____:_____:_____:_____:_____:_____: Strongly Disagree

Appendix B

Cognitive Emotional Regulation Questionnaire

Items are measured on a 5-point scale ranging from 1 (almost never) to 5 (almost always)

This questionnaire measures different emotional responses following a negative life event. Think back to when your sport was cancelled due to COVID-19 in the spring of 2020. How did you feel when this event occurred? Answer each of the questions below with regard to your thoughts and feelings *at that time* vs. now.

Self-Blame

I felt that I was the one to blame for it

I felt that I was the one who was responsible for what had happened

I thought about the mistakes I had made in this matter

I thought that basically the cause must have lied within myself

Acceptance

I thought that I had to accept that it had happened

I thought that I had to accept the situation

I thought that I could not change anything about it

I thought that I had to learn to live with it

Focus on thought/rumination

I often thought about how I felt about what I had experienced

I was preoccupied with what I thought and felt about what I had experienced

I wanted to understand why I felt the way I did about what I had experienced

I dwelt upon the feelings the situation had evoked in me

Positive Refocusing

I thought of nicer things than what I had experienced

I thought of pleasant things that had nothing to do with it

I thought of something nice instead of what had happened

I thought about pleasant experiences

Refocus on Planning

I thought of what I could do best

I thought about how I could have best coped with the situation

I thought about how I could have changed the situation

I thought about a plan of what I could have done best

Positive Reappraisal

I thought I could learn something from the situation

I thought that I could become a stronger person as a result of what had happened

I thought that the situation also had its positive sides

I looked for the positive sides to the matter

Putting into Perspective

I thought that it all could have been much worse

I thought that other people went through much worse experiences

I thought that it hadn't been too bad compared to other things

I told myself that there were worse things in life

Catastrophizing

I often thought that what I had experienced was much worse than what others had experienced

I kept thinking about how terrible it was what I had experienced

I often thought that what I had experienced was the worst that can happen to a person

I continually thought how horrible the situation had been

Other blame

I felt that others were to blame for it

I felt that others were responsible for what had happened

I thought about the mistakes others had made in the matter

I felt that basically the cause lied within others

Appendix C

Consent Form

You are invited to participate in a research project about Student Athlete Identity and the relationship is has on Cognitive Emotional Responses during traumatic events like COVID-19. This online survey should take about 10 to 15 minutes to complete. Participation is voluntary, and responses will be kept anonymous to the degree permitted by the technology being used.

You have the option to not respond to any questions that you choose. Participation or nonparticipation will in no way impact your relationship with Maddie Flores. Submission of the survey will be interpreted as your informed consent to participate and that you affirm that you are at least 18 years of age and participated in an athletic season that was cancelled in the spring semester of 2020.

If you have any questions about the research, please contact the Principal Investigator, Maddie Flores, via email at mflores010@regis.edu or the faculty advisor, Dr. Winterrowd at ewinterrowd@regis.edu. If you have any questions regarding your rights as a research subject, contact the Regis University Institutional Review Board irb@regis.edu

Please print or save a copy of this page for your records.

* I have read the above information and agree to participate in this research project.

____ Enter survey

Appendix D

Demographic Questionnaire

1. What is your current athletic class standing at Regis University?

Freshman

Sophomore

Junior

Senior

Graduate Student

2. What sport do you participate in at Regis University?

Baseball

Softball

Lacrosse

Men’s Golf

Women’s Golf

Other (Please specify)