

2021

## A Qualitative Study of College Athletes' Experiences of the COVID-19 Pandemic

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**A Qualitative Study of College Athletes' Experiences of the COVID-19 Pandemic**

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**Dissertation submitted  
to the College of Physical Activity and Sport Sciences  
at West Virginia University**

**in partial fulfillment of the requirements of**

**Doctor of Philosophy in  
Sport, Exercise, and Performance Psychology**

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**2021**

***Keywords:* sport psychology, collegiate athletes, COVID-19, pandemic, phenomenology,  
thematic analysis**

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## **ABSTRACT**

### **A Qualitative Study of College Athletes' Experiences of the COVID-19 Pandemic**

**Carra Johnson**

The novel coronavirus (COVID-19) pandemic took a toll on collegiate athletics, as all in-person sport activity was shut down temporarily, and competition schedules were heavily altered. The purpose of this phenomenological study was to develop an understanding of how Division I collegiate athletes experienced the pause in college sports that resulted from the COVID-19 crisis, during the first seven to nine months of the pandemic (depending on the time of interview). Between October and December 2020, eleven participants (six females, five males) engaged in individual, semi-structured interviews in which they were asked to describe how the COVID-19 pandemic affected their lives relative to their sport participation. A three-member research team conducted a thematic analysis of the interview data to identify primary themes and subthemes. Three primary themes were identified that captured the pandemic's impact on the athletes: (a) Typical Structure: Gone, (b) Athletic Identity: Decentralized, and (c) New Choices: More Decisions. The findings align with athletes' reported experiences during the COVID-19 pandemic in previous qualitative studies, while also adding novelty by focusing on collegiate athletes and capturing their unique experiences during the pandemic. Athletes' experiences are discussed in relation to motivational theories, athletic identity, and retirement from sport. The author also presents several practical implications for athletes, coaches, support staff, and leaders within Division I college athletics.

### Acknowledgements

So many people have played some sort of role in my ultimate completion of this little paper, I'm not sure I'll ever be able to acknowledge them all. From every faculty member in the SEPP program, to every barista-turned-confidant in every Starbucks in Morgantown, to the crew of monks + visitors + Richard at Bhavana Society, to the always-joyous Trader Joe's employees in Pittsburgh, to amazing friends all over the country, it's taken a serious village to get here. But within that village, I've had some particularly impactful guides and neighbors:

**DR. WATSON.** I will never forget your words when I answered the phone that Monday morning in February 2016: "Are you ready for four more winters in West Virginia?" Turns out, no, I wasn't. In so many ways, I wasn't. Thank you for taking a chance on me, trusting that I was worth your time and energy as an advisor, and giving me the opportunity to be part of this program. It was the hardest experience of my life, and as a result I have grown and learned more from it than anything else—as a student, instructor, researcher, and person. That's your major, semi-indirect impact on my life. Directly, I've become a much better researcher, writer, instructor, and critical thinker through all of our conversations, projects, and back-and-forth feedback. I've learned to take criticism more effectively, and have also learned when it makes sense to stand my ground and provide rationale for my perspective when we're not in agreement. You have had a major impact in ways that have molded me indefinitely, and I hope I was worth taking the chance. Thanks for everything.

**DANIELLE.** This project, first of all, would have been a much different experience for me without your guidance and qualitative expertise—and would not be as strong as it is now. I left every one of our meetings with far more clarity than I had going into them. Through your support and guidance, I have learned *so* much about qualitative research and my confidence as a qual researcher has grown immensely. However, far beyond this dissertation, you are a model of how I hope to operate and communicate as a professional. I have come to respect and look up to you more than I can express. Thank you for being a part of this.

**DR. CLEMENT.** I think you have been such a cool, unique addition to my committee. Your expertise in injury is technically so different from my main focus of the pandemic, and yet unbelievably relevant. And while I'm glad to have your expertise, I'm most grateful for the perspective and positive energy that you bring to whatever room (virtual or in person) that you're in. Since first interviewing with you during interview weekend five years ago, you've had a way of making me feel supported while simultaneously pushing me with critical questions. It's an incredible combo that I am inspired to emulate. Thank you for bringing it all to this project.

**DR. BARNICLE.** Throughout my time at WVU, if I knew nothing else, I always knew that I had your unwavering support and encouragement. Through many years of tension and discomfort, some of the only times I felt at ease were during our interactions—whether it was crossing paths in the hallway or discussing teaching techniques in a Friday afternoon seminar. As I started to pursue this project, I decided that I wanted to feel supported and encouraged rather than tense and pressured—I put plenty of pressure on myself already. While I have always valued your feedback and the expertise that comes with your background in applied work, nothing has meant more than knowing you're in my corner. A thousand times thank you.

**MATT CAMPBELL.** I really don't know where to start in expressing my gratitude. I'm truly overwhelmed by the way you have *so* quickly, willingly, and kindly jumped onto the tail end of this project when I reached out. You've been unbelievably kind, supportive, and easy to work with in the small but wildly important sliver of time during which I've asked for your help. I'm convinced that academia, and the world, would benefit from having more people like you. Following your example, I am inspired to hopefully be one of those people, too. I can't thank you enough!

**KATE & JAY.** I address you here as my research team, but you have also been incredible friends to me for some of my most challenging years. How incredible (or maybe, not particularly shocking?) that two of the people in the program who I felt best understood me also turned out to be absolutely key players in my dissertation. In contributing so much time and energy to this tedious project, I've compared your selflessness to the selflessness of organ donors—and I stand by the comparison. I don't know why anyone agrees to get involved with something like this, and it was so important to me to do this right, so there really wasn't any cutting corners. I asked so much of you both, and you both generously and genuinely committed (and, taught me so much throughout the process). I'm so proud of what we've done here—the depth and the big-picture perspective that we achieved in our analyses seem to be unmatched in similar studies. I attribute that to the beautiful way that each of you looks at the world—thoughtfully, critically, through lenses that effectively zoom in and out to capture the whole story. It is because of this, along with your kindness and authenticity, that I consider you some of my most cherished friends regardless of the distance between us. For every conversation and adventure from the moment I arrived in Morgantown—thank you for all of it.

**REEN.** As we've gotten older, I've realized one of my greatest joys in life is making you laugh (even—and maybe especially—when it's at my expense). Like the time I brought up hermeneutic phenomenology during fam dinner (“what did you just say??”). Thank you for bringing the joy, challenge, and humor to my research papers the last few years—fingers crossed this is the one that gets us published! And, a big thank you for your support and encouragement throughout this process—it's so subtle, but means everything to me. I am so impressed by you and how you live your life, and I hope to make you even half as proud of me as I am of you. I love you. –Doc

**DAD.** Thank you for continuing to be the best listener I know, and for helping me see that everything isn't as serious as I sometimes feel or act like it is, better than anyone else can. This whole process—moving, school, and this project—was tough on me, and when it felt like too much to handle, you were usually my first call. You've been my most steady, reliable source of support over these years, and I'm so fortunate that I could trust you to pick up the phone nine out of every 10 times I called (even though you don't think I call that much!). I'm not sure if I'd be at this point, finishing this up, without the consistent safe space you've provided. Love, #1.

**MOM.** You've answered more tearful phone calls in these years than any parent should have to endure. Thank you for your endless support, especially through the moments when I know my hurt caused you hurt. “If you're that unhappy, just come home.” I know you meant it literally, but somehow it pushed me the other way and ultimately resulted in a completed doctoral

dissertation. Maybe it's not super surprising, considering a lot of this drive, strength, and work ethic comes from you (and grandma). I love you so much.

**TJ.** You landed in my life while I was deep in this little school project, and wow, what a critical time. I'm so grateful for your direct support—giving me the space to work, being an unofficial “critical friend” in the analysis process, going on coffee shop work hangs, making sure I was always fed. However, I'm most grateful for the intangible balance that you've brought to my world—a balance that gives me clearer perspective on what's important to me, and that (maybe counterintuitively) has helped me focus deeply on my research at a time when I really needed to. I think the world of you—the natural, not-tainted-by-man world—and can't wait for my turn to be the “dissertation spouse.” I love you.

**ERIKA.** I believe this means that we've successfully met the terms of the Hancock Pact (or however pacts work)! It's been nearly five years since that drive to NYC, wondering out loud if we could make it through this process. I'm so proud of you for holding up your end of the pact, and so grateful for your relentless support and encouragement as I've sought to hold up my own. Hancock Pact is forever, though. We were absolutely meant to be on this journey together, and you are forever embedded into the fabric of my life and my heart. Thank you for every walk and talk (in person or cross-country), for every life-giving adventure—from snagging wooden pallets to jumping out of a plane, for pushing me even without realizing you were, for your wisdom—in research and in life. I love you tons.

**SOFIA, MY FIFTH COMMITTEE MEMBER.** This project doesn't exist without you. I remember exactly where I was as I told you about this idea over the phone, feeling defeated and not wanting to propose one more dissertation idea. “What's the worst that could happen?” you said, encouraging me to propose this “college athletes' experiences of COVID” thing. This doesn't even scratch the surface, though. You have become such a force in my life, and the last few years would have looked entirely different without you. Te quiero muchísimo (y, crees que alguien va leer más que esta página?).

**JAMIE.** Thank you for being my home away from Morgantown. I don't know if I would be at this point without you, letting me crash your Washington Heights apartment whenever I wanted (needed) during my first couple of years. Your love, care, and empathy are truly second to none, and I needed it more than ever every time I popped up in NYC—more than I even knew at the time. I am in love with every memory we've created there together. So many miles, so much food! I love you very much.

**V.** In the midst of this project (and pandemic), you became my favorite distraction and most wonderful supporter (although, you've been that for over a decade). Thank you for all of the long talks, long drives, unplanned adventures, life perspective, and even your help with recruitment. You have supported this venture in so many different ways, directly and indirectly, and I add it to the long list of reasons why you're my favorite person who was never actually my teacher. Love, Bonita Girl.

**ACUP.** Thank you for your support throughout this journey. AC—a text, phone call, or seeing you on the East Coast was always grounding and felt like home at times when I felt unsettled and

very much not “at home.” UP—your genuine interest in my research, classes, and progress has always meant so much, because it takes a real kind and curious soul to listen to—let alone ask questions about—research and academics. And while I appreciate all of the ways that you both support me, backyard graduations may be the greatest. They have become my favorite events, and the thought and care that you’ve put into them over the years is unbelievable. If this project and this degree are worth finishing for any reason, it’s definitely the backyard grad! Can’t wait. Love you.

**GRAMS & GRAMPS.** It has meant so much to have you witness some of the important parts of this multi-year process. It is one of the best feelings in the world to know I’ve made you proud, and while I know it doesn’t require a doctorate degree, I still hope you are proud of the work I’ve put into it. During my time in school, talking to you guys was always so encouraging. Our phone calls lifted my spirits whenever I wasn’t feeling great about my work or myself, and often reminded me that I was actually doing okay after all. That I was loved and that you were proud no matter what. Thank you for loving me so unconditionally. You’re the best grandparents anyone could ask for, I love you.

**THE ATHLETES.** Last but possibly the most important, this study doesn’t exist without the college athletes who agreed to participate and share their stories. I cared about this project before starting the interview process, but I cared on such a deeper level after talking to each of these individuals. Their investment in the project fueled me to stay invested when the work felt tedious. Their willingness to share their experiences with me stoked my determination to present their collective story as accurately as possible, which made me a better researcher and made this a better dissertation.

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### **A Qualitative Study of College Athletes' Experiences of the COVID-19 Pandemic**

On January 30, 2020, the World Health Organization declared the outbreak of the novel coronavirus (COVID-19) a public health emergency of international concern. As a result, systems within the United States were altered to an unimaginable degree—including collegiate sports. As institutions of higher education rapidly transitioned to online learning and eliminated in-person engagements in the spring of 2020, and professional sports leagues immediately shut down, the National Collegiate Athletic Association (NCAA) followed a similar trajectory by shutting down all athletic activities because of the quickly growing pandemic.

#### **Changes to College Sports due to COVID-19**

Prior to making any system-wide changes or cancellations, the NCAA formed the COVID-19 Advisory Panel in March 2020. This panel consisted of NCAA chief medical officer Dr. Brian Hainline, seven experts from the fields of medicine, public health, and security, and four former or current student-athletes. In early March, the advisory panel suggested that athletic events not be cancelled; however, within two weeks this perspective changed as COVID-19 cases and deaths increased rapidly throughout the country. On March 19th, the NCAA cancelled all upcoming winter 2019-2020 and spring 2020 sport championships—including the highly-profitable NCAA men's and women's basketball tournaments (Hale, 2020). By cancelling all remaining championships, all sports were rendered out-of-season for the remainder of the 2019-2020 academic year. Further, due to social distancing measures and moratoriums on group gatherings, athletes could not partake in supervised physical workouts (National Collegiate Athletic Association, 2019). As a result, Division I athletes were only allowed to participate in up to eight hours per week of “virtual nonphysical countable athletically related activities” for the remainder of the season (National Collegiate Athletic Association, 2020a). Many collegiate

athletes had relocated to live with family members at this point, as all academic and athletic commitments were occurring virtually (National Collegiate Athletic Association, 2020c; Petrie et al., 2020).

Transitioning into the summer of 2020, college sports remained inactive in regard to in-person interactions as colleges and universities remained closed to students and courses continued to be administered online. However, on May 20th, the NCAA voted to allow all Division I athletes and coaches to voluntarily return to their campuses for in-person athletic activities beginning June 1, 2020 (Hosick, 2020b). Although the NCAA provided continually updated recommendations and a checklist for athletic programs regarding resocialization (National Collegiate Athletic Association, n.d.; National Collegiate Athletic Association, 2020a), discretion was ultimately left to each school to determine how they would manage the process (e.g., access to on-campus facilities, group size, measures taken to limit spread of the virus) based upon state and local regulations (Hosick, 2020a). While all in-person athletic activity was voluntary at this time, the NCAA eventually allowed for the implementation of mandatory practice and training once again—beginning with football and basketball (men's and women's) in July 2020. However, at this time it remained unclear whether upcoming collegiate sport seasons would take place at all due to the ongoing pandemic and the associated safety concerns. While the continual spread of the COVID-19 virus remained a concern, some professional sports organizations made logistical modifications to hold competitions by late summer (Axisa & Anderson, 2020; Reynolds, 2020; Gregory, 2020). However, as the fall season approached for collegiate sports, athletic conferences began to reduce the number of competitions that would take place or cancelled seasons entirely (The Ivy League, 2020; Kilgore, 2020). The NCAA eventually followed suit and in August cancelled fall championships, although member schools

who chose to engage in athletic competitions could still do so (National Collegiate Athletic Association, 2020b).

Entering the fall of 2020 and continuing into the following spring, pandemic-related restrictions began to ease a bit as evidenced by some American colleges and universities returning to in-person or hybrid instruction (*C2i Dashboard*, n.d.). Early in the fall, the NCAA rescheduled fall sport championships to take place in the spring of 2021 rather than cancelling them altogether (*DI Council approves changes to FCS championship*, n.d.; Johnson, 2020). For fall sports (all but Football Bowl Subdivision [FBS] teams), the offseason and competition season were flipped because of this decision. However, the NCAA Division I FBS—the top level of college football, made up of 10 athletic conferences—operates separately from the NCAA. Therefore, each member conference independently determined whether they would move forward with a football season in fall 2020. This decision had major financial implications, as FBS teams generate a reported 48% to 64% of the income for Power Five athletic departments each year (Dochterman, 2020). Ultimately, FBS conferences held shortened football seasons that started later than usual in the fall; most played conference-only games to reduce travel and contact between athletes. Despite efforts to protect against the virus, over the course of the season 139 games were canceled or postponed due to COVID-19 outbreaks (Cobb et al., 2020).

### ***Extension of Athletic Eligibility***

As a result of cancelled championships and heavily modified seasons, the NCAA granted an additional year of athletic eligibility to athletes who were eligible to compete in spring 2020, fall 2020, or winter 2020-2021. However, this extension was not granted to winter sport athletes who competed in the 2019-2020 season because although some of their championships were

canceled due to the pandemic, they all still completed most of the season prior to the pandemic. Despite the NCAA's approved extensions, member schools were not required to honor this, nor were they required to provide the same amount of financial aid that athletes had been receiving previously. Multiple universities opted not to honor the eligibility extension (Pickman, 2020; West, 2020), and due to a major reduction in NCAA revenue distribution to its member schools in 2020, reductions in financial aid have manifested in fewer athletic scholarships available for incoming freshmen (Ngo, 2020; Pittsburgh Post-Gazette, 2021).

### **Impact of the COVID-19 Pandemic on Athletes**

The changes that have resulted from the COVID-19 pandemic have affected athletes physically, psychologically, and emotionally. The period of mass quarantine—during which Americans were expected to maintain social distance by staying primarily in their households—has been described as a “critical pause” for athletes in which their lives came to a standstill and they made temporary changes as they waited for their lives to “return to normal” (Whitcomb-Khan et al., 2021). For elite athletes, this period was commonly laden with a sense of loss: loss of sport training, physical conditioning, athletic identity, motivation to engage with daily activities, consistent routine, and support (emotional, technical and social; Gupta & McCarthy, 2021; Whitcomb-Khan et al., 2021). Further, the “relatively aimless” nature of this mass quarantine was highly incongruent with elite athletes' typical structured environments and schedules (Gupta & McCarthy, 2021). Athletes also experienced uncertainty about their athletic careers, unclear when or if they would compete again as their return to sport was so dependent on the ever-changing landscape of the pandemic (Whitcomb-Khan et al., 2021).

### ***Changes to Sport Training***

One change brought about by the COVID-19 pandemic was the alteration of athletes' sport training and engagement in physical activity. In the first months of the pandemic most Division I athletes reportedly engaged in regular vigorous activity—many for more than an hour per day (Petrie et al., 2020). However, very few were able to maintain the training routines they had prior to mass quarantine, and training frequency and time dropped considerably (Bowes et al., 2020; Izzicupo et al., 2021; Jagim et al., 2020). While athletes spent less time than usual engaging in strength and conditioning, mobility, and flexibility training, the greatest reduction was seen in sport-specific training as athletes reported a 6.5-hour reduction per week in this area (Jagim et al., 2020). The impact that the pandemic had on athletes' sport training is attributable to various logistical factors, as well as emotional, psychological, and motivational changes.

A lack of access to training facilities contributed to the reported decline in collegiate athletes' training regimen. Local regulations, facility closures, and lack of access to necessary resources were by far the greatest barriers to training cited by Division I athletes (Petrie et al., 2020). Athletes did not have access to their college or university training facilities because they relocated and/or the facilities closed due to the pandemic, and local safety regulations led gyms and training facilities to close their doors for varying stretches of time. As a result, many athletes did not have access to the equipment necessary to engage in or maximize their training. Another barrier to training was the lack of access that athletes had to coaches (in-person or virtually, National Collegiate Athletic Association, 2020b). Although many athletes received virtual support from their sport coaches and strength and conditioning coaches while they trained independently, it is likely that the amount of contact and programming varied between coaches (Jagim et al., 2020; Peña et al., 2021) as did access to appropriate training facilities/equipment.

Athletes' training regimens and levels of physical activity during the COVID-19 pandemic also appeared to be influenced by internal, individual factors. Challenging emotions seemed to limit the extent to which athletes engaged in training during the pandemic, as Division I athletes cited fear of exposure to the virus, stress or anxiety, and sadness or depression as barriers to training (National Collegiate Athletic Association, 2020c; Petrie et al., 2020). While not assessed directly, in many cases these emotional responses were likely driven by cognitive appraisals about the severity, danger, and impact of the virus—an important psychological component that may have ultimately impacted athletes' training as well. Finally, training motivation changed for athletes during the mass quarantine. Specifically, motivation to train for sport reportedly decreased (Jagim et al., 2020), and athletes became more inclined to train to avoid physical regression rather than to strive for improvement as was more common prior to the pandemic (Mascret, 2020).

### ***Impact on Athletes' Mental Health and Well-Being***

In the initial months of the COVID-19 pandemic, collegiate athletes reported mental health concerns at rates 1.5 to 2.5 times higher than usual (National Collegiate Athletic Association, 2020c). Division I athletes' reported experiences included depression (26% reporting clinical levels), anxiety, psychological distress, feeling overwhelmed, difficulty sleeping, mental exhaustion, loneliness, hopelessness, and anger (National Collegiate Athletic Association, 2020c; Petrie et al., 2020). Despite these challenges, there was a nine percent reduction in the number of college athletes who continued to receive mental health counseling after the onset of the pandemic, per athlete reports (Petrie et al., 2020). Similar challenges appeared to plague athletes who had been preparing for the 2020 Olympics in Tokyo, as the pandemic-related changes left them "puzzled" and stressed (Schinke et al., 2020). The Olympic



hopefuls described experiencing decreased sleep and appetite, increased rumination and loneliness, and fear that they might lose the opportunity to compete in the Olympics altogether.

As mass quarantine continued and sports remained shut down, athletes all over the world had a range of experiences regarding their mental health and well-being. Some studies demonstrated increases in depression, anxiety, and insomnia among athlete populations because of the pandemic and related concerns (e.g., worry about finances; Pensgaard et al., 2021; Roberts & Lane, 2021). Other studies did not support this, as athletes showed “relatively low,” non-pathological levels of stress, anxiety, and depressive symptoms—a pattern possibly attributable to elite athletes’ experiences coping with competition-related anxiety and developing cognitive coping resources as a result (Clemente-Suarez et al., 2020; Leguizamo et al., 2020). When asked directly, some student-athletes expressed that their experiences as athletes had prepared them to manage their time, maintain motivation, and remain disciplined during the pandemic. Others felt that there was no advantage, as being an athlete did not make them different from other people and in some ways being an athlete may have been more difficult because of the demands that come with this role (Izzicupo et al., 2021).

Finally, athletes’ mental health and well-being during the COVID-19 pandemic differed based on personal characteristics. For instance, the pandemic appeared to have a greater negative impact on female athletes, as they reportedly experienced more stress and anxiety, fear of the virus, and psychological decline, along with lower levels of perceived control in their lives compared to male athletes (Bowes et al., 2020; di Fronso et al., 2020; Håkansson et al., 2020; Kaçoğlu et al., 2021; Pons et al., 2020; Ruffault et al., 2020). Further, more seasoned athletes and those competing at higher levels were less impacted than those with less experience or competing at lower levels (Pensgaard et al., 2021; González-Hernández et al., 2021; Kaçoğlu et

al., 2021). This may be due to high-level athletes having access to more resources and support from coaches and mental health practitioners (Pensgaard et al., 2021), and increased sport experience may have helped athletes build the capacity to cope with challenges. Although athletes competing at higher levels expressed less general distress during the pandemic, they reportedly experienced more anxiety about returning to sport (Ruffault et al., 2020). Team sport athletes generally reported less distress during the pandemic compared to individual sport athletes, possibly as a result of having a built-in support system, more contact with team members, and less pressure to perform well immediately upon return to sport as the responsibility to perform is distributed across team members (di Cagno et al., 2020; Uroh & Adewunmi, 2021). Finally, the extent to which individuals identified as athletes appeared to play a role in mental health and well-being during the COVID-19 pandemic, although findings were mixed. In one study, a stronger athletic identity was associated with greater tendencies to ruminate and catastrophize during the pandemic (Costa et al., 2020). A strong athletic identity may lead to greater concerns about sport training, and discomfort when away from one's sport for a prolonged period. However, in another study athletic identity was associated with less psychological distress during the pandemic (Costa et al., 2020; Uroh & Adewunmi, 2021); the authors explained that intentionally increasing one's athletic identity may serve as a protective factor against distress.

### **Current Study**

The major logistical changes to college sports over the course of the COVID-19 pandemic have altered collegiate athletes' lives in various ways. This population is unique as they are young adults who typically operate in highly structured, physically and psychologically demanding, competitive environments. The experience of the COVID-19 pandemic—

particularly during mass quarantine—forced many collegiate athletes into “relatively aimless” lifestyles that in many cases were vastly different than what they were used to. To understand the significance and impact of the systemic changes to college sports, it is valuable to gain a nuanced understanding of collegiate athletes’ lived experiences and reflections of the pandemic relative to their athletic careers. The purpose of this study was to develop an understanding of Division I collegiate athletes experiences of the pause in college sports that resulted from the COVID-19 pandemic.

### **Methods**

The primary researcher’s philosophical perspective heavily informed the hermeneutic phenomenological approach taken to address the research questions in this study. Ontologically, the researcher maintains the idealist perspective that while there are experiences which humans seemingly share with one another, each person has different perceptions and meanings associated with each phenomenon (Sale et al., 2002). Epistemologically, the researcher believes that the truth can only be known through each individual’s personal interpretations and those of others (Guba & Lincoln, 1994). Based on these philosophical underpinnings, a hermeneutic phenomenological approach was taken to effectively explore individuals’ lived experiences through their own interpretations while also acknowledging the role of the researcher’s perspective and existing biases (Heidegger, 1927). Specifically, the researcher acknowledges her experience as a former Division I collegiate athlete and strength and conditioning graduate assistant, which provided valuable understanding of Division I athletics while also contributing to existing biases. The researcher also acknowledges her personal experiences during the COVID-19 pandemic.

### **Participants**

Participants in this study were 11 Division I collegiate student-athletes from various institutions and athletic conferences across the United States. The researcher employed a demographic variation approach (Sandelowski, 1995) to include a near-equal number of male and female athletes, with varied racial backgrounds and class standings. Athletes were also recruited from a range of sports to capture experiences that varied based on sport culture and the likelihood that an athlete would be able to continue their career in their respective sport at a professional level. To be eligible to participate in the current study, the athletes had to (a) be at least eighteen years old, (b) be part of a team whose athletic season had been impacted by the COVID-19 pandemic (winter and spring sports during the 2019-2020 season, fall sports during the 2020-2021 season), and (c) have remaining athletic eligibility and expect to return to play for their current team in the following season. Participant demographics can be found in Table 1.

**Table 1**

*Participant Demographics*

<b>Participant (Pseudonym)</b>	<b>Gender</b>	<b>Sport</b>	<b>Age</b>	<b>Race</b>	<b>Academic standing (2020-2021)</b>
Bryce	Male	Soccer	22	White	Senior
Daphne	Female	Soccer	20	Asian	Junior
Luka	Male	Soccer	22	White	Senior
Toby	Male	Cross Country	24	Hispanic	Master's
Devon	Male	Football	21	Black	Junior
Paris	Female	Track	22	Black	Master's
Megan	Female	Volleyball	21	White	Master's
Taylor	Female	Softball	20	White	Junior
Sophia	Female	Softball	19	White	Freshman
Emma	Female	Soccer	22	White	Senior
Keoni	Male	Baseball	20	Hispanic	Junior

**Procedures**

Athletes were recruited using both purposive and snowball sampling, and data was collected through individual interviews. By conducting semi-structured interviews, the

researcher aimed to understand each participant's experience of the pause in college sports due to the pandemic, and the impact on their lives that they experienced as a result. A participant-driven interview dynamic was established by asking the broad, open-ended question, "Can you talk about how the COVID-19 pandemic has affected your life relative to your sports participation?" (Englander, 2012; Vandermause & Fleming, 2011). Follow up questions were then asked based on the interviewees' particular responses. Interviews took place virtually via Zoom to securely record and store the video meetings (Zoom Video Communications Inc., 2020). Prior to starting the interview, each participant was reminded that the interview would be recorded, and that only the primary researcher and possibly a transcriber would have access to the audio.

Trustworthy phenomenological research is dependent on sampling adequacy, or the researcher's assessment of the extent to which all evident and knowable experiences of the phenomenon being studied have been accounted for (Bowen, 2008; Morse et al., 2002; van Manen et al., 2016). The researcher assessed that after conducting 11 interviews, common experiences had been clearly established as re-occurring patterns were emerging from the athletes' responses. While variations in experiences/patterns continually emerged as a result of individual and situational differences, general patterns appeared to the extent that the researcher determined Division I collegiate athletes' experiences during COVID-19 had been accounted for. Therefore, the researcher terminated data collection after conducting 11 interviews.

### ***Data Analysis***

Interviews were analyzed by a research team of three coders with backgrounds in sport, exercise, and performance psychology. The coders conducted a thematic analysis, following Braun and Clarke's (2006) 14-step model. The coders first read the entire data set independently

to familiarize themselves with the data before independently coding the interviews. A data-driven approach was taken during the coding process to allow codes to emerge naturally from the interviews, without conscious influence from existing theories, models, or research. Upon establishing a list of agreed-upon codes, the coders collapsed them into potential themes—first independently, and then through collaborative discussion. They then engaged in multiple rounds of individual analysis and collaborative meetings to define and refine the primary themes, identify subthemes, and develop a thematic map to serve as a visual representation of the findings. Through this iterative process, the coders identified three primary themes that captured athletes' experiences of the COVID-19 pandemic, and the impact that the pandemic had on their lives relative to their athletic endeavors.

### ***Trustworthiness***

Various steps were taken throughout the data collection and analysis process to ensure trustworthiness of the data (Elo et al., 2014). First, the establishment of a research team allowed for multiple perspectives and unique interpretations of the data. Second, the research team carefully followed Braun and Clarke's well-cited outline of thematic analysis (2006) to ensure a thorough and credible analysis of the data. Third, each member of the research team engaged in reflexive journaling throughout the analysis process to document decisions, rationales, and their own reflections to maintain an audit trail (Nowell et al., 2017). Fourth, direct quotes from participants have been included in the results to ensure that the information is being presented accurately (Wadey et al., 2012). Finally, participants in the current study were each sent a copy of their respective interview transcripts to review and provide any feedback or changes if they desired (none had feedback or requested changes). Upon completion of the study, participants

also received a copy of the aggregated results to review, though none responded with further feedback.

## **Results**

The 11 participating Division I athletes were interviewed between October 20 and December 5, 2020. During this time, the athletes had all resumed training for their sports with their respective teams and schools, but with many COVID-19 safety measures in place. Some athletes were facing unknowns about their impending sport schedules, sometimes unsure if the upcoming season was going to be cancelled or not. Other athletes had recently (at the time of the interview) completed seasons that had been modified due to the COVID-19 pandemic. The athletes' responses provided a comprehensive story of what their lives had been like from the beginning of the pandemic until the time of their respective interviews. Based on their accounts, three primary themes capture how the COVID-19 pandemic affected their lives relative to their sport participation: (a) Typical Structure: Gone, (b) Athletic Identity: Decentralized, and (c) New Choices: More Decisions. A visual representation of themes and subthemes can be found in Figure 1.

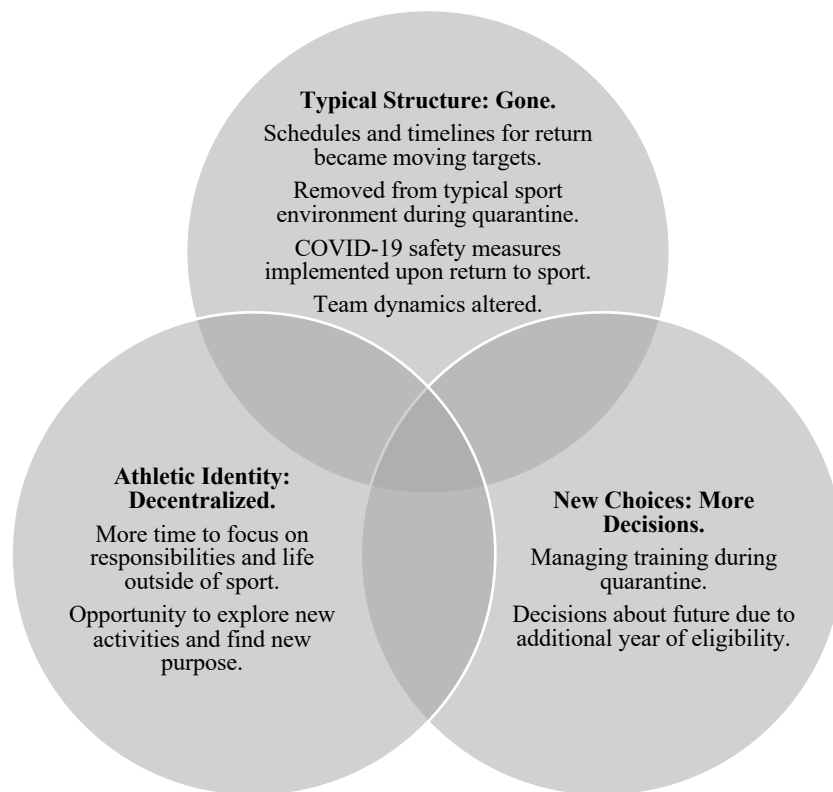
### **Typical Structure: Gone**

Division I collegiate athletes typically operate within a very structured system. Each sport has a clearly defined primary season, competitions are scheduled well in advance, and the competition schedule is published in advance of the season starting. Day-to-day, Division I athletes tend to have heavily scheduled lives during the school year that create a lot of structure, including scheduled practices, strength and conditioning sessions, time in the training room for recovery and treatment, tutoring and/or study hall, team meetings, and community events. However, the structure that athletes become accustomed to was absent during the pandemic. The

loss of structure has been broken into four subthemes: (a) competition schedules unknown, and timelines for return became moving targets, (b) athletes removed from typical sport environments during mass quarantine, (c) COVID-19 safety measures implemented upon return to sport, and (d) team dynamics altered.

### Figure 1

*Thematic Map of Athletes' Experiences During the COVID-19 Pandemic*



### *Competition Schedules Unknown, and Timelines for Return Became Moving Targets*

A major change in the typical structure of athletes' lives was the uncertainty surrounding future competition schedules and seasons. As the pandemic continued, sport seasons were not only cancelled but postponed with no clear or definitive dates for return. Many times, athletes were given a return date only to have that date postponed further as the pandemic continued:



...it just kinda kept being like, one week, they were like, "Yeah, we're gonna start next week," and then we would get to like the night before and they're like, "Nope, gotta wait another week." (Emma, soccer)

The lack of a definitive return date made it difficult for the athletes to plan and prepare for their return to campus and sport training:

It was a little odd because we didn't really know when we were gonna be allowed back, like it was constantly changing like, "Okay, we wanna try to get you back June 1st." And then it was like, "We can't get you back June 1st, we're gonna try June 8th." And then it kinda just kept getting pushed back and...I'm very organized and I like to have a plan and stuff, and so it was like a little hard for me to be like, "Okay, what are we doing? I kinda wanna know what's going on." (Megan, volleyball)

All the athletes returned to training on campus with their teams by the end of summer 2020.

However, the start dates for fall sport seasons were often moving targets, and some fall sport athletes were training without any confirmation that there would be a season at all:

...at some point it looked like there's no chance for playing, then at some point it looked like we're definitely gonna play again, we're all getting ready, and then it got closed again because the cases would rise again. So I think it was just an up and down, up and down. (Luka, soccer)

Spring sport athletes were months away from their typical season start dates, but were still plagued with the unknown of whether there would be a season or not:

We don't know if we're gonna like have a first game of the season or what we're gonna do, but yeah, if the spring goes as planned, I guess they'll roll our schedule out here pretty quick, but everything is super undetermined... (Sophia, softball)

As a result, some spring sport athletes seemed to have less confidence in the value of their off-season training, questioning whether there would be a season to justify their training:

Now today, we're at this kind of awkward place of, "Are we even practicing for a reason?

Are we gonna have a season? Do we even have track meets lined up?" (Paris, track)

### *Athletes Removed from Typical Sport Environments During Mass Quarantine*

Collegiate athletes were not in their typical training environments for many months during mass quarantine. Many moved away from campus to live with family during this time, while others remained in their housing near school but nevertheless remained isolated without in-person access to facilities, coaches, teammates, and other support staff. Many of the athletes noted that they were less motivated to train on their own, away from their teammates, coaches, and typical competitive environments:

Yeah, I mean, [home is] definitely a different environment, I think, compared to, if we were to be able to be as a team and train together, like I'm working that much harder, I'm motivated more. Like, for me and like a lot of people in athletics...[we] have such a competitive mindset, and it's really different to be competitive with yourself, compared to competitive to someone else. (Emma, soccer)

However, some athletes had access to training equipment (e.g., batting cage, weights) and/or other people to train with from the very start of mass quarantine, even when facilities were closed. For these athletes, removal from their typical environments and structured schedules seemed to facilitate training:

...but not like playing, like softball at that time and not going to school, like I was able to... really focus on like my game. Like I would go and throw every day and like just be really focused on workouts, so like, I like that aspect that I was like kind of being

independent, like not having to go to school and not having that like strict schedule.

(Sophia, softball)

### ***COVID-19 Safety Measures Implemented Upon Return to Sport***

As collegiate athletes returned to campuses and resumed sport training, their schools and athletic departments had implemented safety protocols to reduce the spread of the COVID-19 virus. Specific safety protocols seemed to vary between athletic departments and depended somewhat on the nature of the sport (e.g., outdoor versus indoor, close contact versus spread out). Safety measures were put in place that became part of the athletes' regular procedures, interfering with their typical structure and routine:

Everyday we'd show up to the front of like, our athletic building. They'd take our temperature, give us a wristband if you passed your temperature [check]. Every morning, 30 minutes prior to showing up to any facility, we had to fill out a thing called a daily wellness, uh quiz. (Keoni, baseball)

Although teams sometimes shortened their practices as part of their response to COVID-19, the athletes also had to take more time as they intentionally adhered to the COVID-19 safety requirements. One athlete highlighted the additional planning and preparation that it required to go to the training room for treatment:

We always had to do extra sign-up sheets, or like text before if we wanted to get treatments...like they had to be prepared, and like if...they don't know ahead of time...then like you're not gonna get the treatment that you need, so like...we have to be like super on top of like our schedules and stuff. (Sophia, softball)

Many of the athletes were required to quarantine upon return to campus and before they could return to team practice, and some had to quarantine due to contact tracing and the spread of COVID-19 among groups of athletes:

Then in July, we ended up having to go into a third week of quarantine because the athletic department as a whole... I'm not gonna name names of teams, but one team was already practicing, had major issues, and so we got completely shut down, so we had to go into a third week of quarantine... (Megan, volleyball)

Further, athletes had grown accustomed to practicing as a team or training in particular organized groups prior to the pandemic. This structure changed upon their return to training, as many teams were initially separated into smaller training groups to prevent potential team-wide outbreaks of the COVID-19 virus. Over time—usually the course of a few weeks—practices and training sessions shifted toward what was considered “normal,” as teams progressively practiced in bigger groups or as a whole once again:

Their plan at first was to keep each group, you know, with each other, and then you know after you get tested and everybody's positive, “Okay, now we know that nobody in each group had one single person that was infected.” So now we can come [together] collectively, but for the meantime, our meetings were just running backs, just quarterbacks, just you know, not collectively offense... We...transitioned into a team play, and then we [transitioned] into contact as we continued to get tested and found negative results. (Devon, football)

Beyond initially practicing in small groups, additional safety protocols were implemented during practices and strength and conditioning sessions that went against the typical structure athletes were used to in their training environments. In some cases, this even altered the way they

experienced their sport. Athletes were required to wear masks at certain times during training (this varied between teams and sometimes between positions), physically distance from others, and make adjustments to ensure equipment was sanitary or sanitized:

...at first, we couldn't touch the baseball with our hands. So we'd catch it with our glove, run to the bucket, drop the ball, like, with your glove, and if you did touch it, our trainers, like uh, player trainers. They would have to like sanitize the ball and like wipe it down with a towel and like...There [were] a lot of rules. (Keoni, baseball)

Finally, some of the athletes expressed negative perceptions of the impact that COVID-19 safety measures had on the vibe during training sessions. One athlete discussed the impact of his team being divided into smaller groups:

For us to not necessarily see our complete team on the field, for us to not see our complete team working out, it's a total change of scenery and it kinda like, lowers the tension as far as the excitement, as far as the intensity when it comes to working out, because you don't get to see, you know, the big groups, everybody pumped and everything. So everything...has been like watered down because of it. (Devon, football)

### ***Team Dynamics Altered***

Athletes experienced changes in their interactions with teammates both due to physical separation during mass quarantine, and because of the altered circumstances they experienced upon return to training. During mass quarantine, the athletes' interactions with teammates and coaches took place through various mediums (e.g., text messaging, phone calls, virtually playing video games, Zoom meetings, in-person) and varied in frequency. Interactions were formal (e.g., team meetings) or informal (e.g., teammates texting as friends). Once the typical structure was

removed, team dynamics that existed prior to the pandemic—relationships between teammates, athletes' perspectives of coaches—appeared to be magnified during the mass quarantine:

The team, we talked, like the players, 'cause we all play video games together. We all talk on the phone together. Play games on our phone together, like we all are good friends. (Keoni, baseball)

The following athlete expressed that she “thought about transferring” at many points during the pandemic “because of the lack of [her] coaches and [her] team doing anything...as a team”:

In the beginning, our coaches would call. Like, one of our coaches would call every couple weeks just to check in, see how our families were doing, how we're doing...I think that was maybe, they only did it for maybe a month, month and a half. They tried. They're not the best but, they tried. Our team definitely lacks in that aspect of coach-player relationship... (Daphne, softball)

Once athletes returned to in-person training, athletic departments and coaching staff largely expected them to remain in a social “bubble” that only consisted of their teammates to prevent a COVID-19 infection from an outside source. Many suggested that this limitation led them to spend more time with their teammates than usual, which created a unique bonding experience:

So almost feels like we're more, more together now, like in the day, then we would be normally in a fall season because in the fall season, I feel, I feel like we would have a morning practice, we'd go to all of our classes, and then if we have a game or somethin' on the weekend, we'd see each other...that night, but now it's like we see each other every day. Sometimes twice a day... (Bryce, soccer)

However, the unique changes brought on by COVID-19 sometimes caused tension and dissatisfaction among the athletes. Some of the athletes were dragooned into quarantine due to

close contact with someone who had contracted the virus, and were dissatisfied with their teammates' lack of communication and support during that time:

I got push back from my team, they were like, "Why weren't you texting us and saying like, good job," and blah, blah, blah. And I was like...first of all, I was a little frustrated because I didn't hear from any of them about, you know, asking how I was doing or anything like that. And...so it was like...is this like a pot calling the kettle black situation? (Megan, volleyball)

Ultimately, regardless of athletes' prior relationships and interactions with coaches and teammates, the quality of communication (or lack thereof) that they typically had with these individuals was amplified during the pandemic.

### **Athletic Identity: Decentralized**

Athletic identity is the extent to which a person identifies with their role as an athlete (Brewer et al., 1993). The athletes did not seem to disconnect from their identities as athletes during the mass quarantine—some even utilized this time to engage in regular training for their sport, reinforcing their roles as athletes by focusing on their development in this area. The athletes also intended to return to play as soon as they were allowed, further highlighting their intentions to continue their athletic careers. However, during the mass quarantine they had much more unstructured time in their days with far fewer (if any) required athletic commitments. Regardless of the extent to which they engaged in sport training voluntarily, the athletes all described a greater engagement in activities, responsibilities, and facets of their lives unrelated to sport. This was a result of the athletes having excess amounts of free time, seeking ways to mitigate boredom, finding value in other non-sport activities, or any combination of these reasons. Other aspects of their identities were strengthened as a result, thus "decentralizing" the

athletic identity that is typically quite central among collegiate athletes. This decentralization of athletic identity is divided into two subthemes: (a) more time to focus on responsibilities and life outside of sport, and (b) opportunity to explore new activities and find new purpose.

***More Time to Focus on Responsibilities and Life Outside of Sport***

With more time available and far fewer obligations, the athletes had more time to engage in their existing roles outside of sport. For instance, some of the athletes valued the opportunity to spend more time with their families (part of which was also a function of moving in with family temporarily):

I had never spent so much time at home...just hanging out with my family and stuff, so like we all got to know each other, I guess, a little bit more too, which was like, a good thing. So like I enjoyed that aspect. (Sophia, softball)

Two of the athletes emphasized that with more free time and fewer sport commitments, they were able to focus on their academics more than usual. Of note is that both athletes were competing in major American sports that afforded them an opportunity to play professionally after college—an endeavor that both athletes intended to pursue. One athlete expressed that his grades were the highest they had ever been, and attributed his academic success to the additional time and energy available to him without long days of training for his sport:

I have so much more time to just study and space out my work. Whereas at school, it'd be, you know, I wouldn't get home 'til five or six or whatever time [it] was, and then I'd eat dinner and then grind school. And like it's...doing work at eight o'clock at night after a long day of baseball and like, training and like all that, is a lot different than me coming home at three o'clock [or] four o'clock, showering, eating dinner peacefully, and then just doing my work like that. (Keoni, baseball)



The other athlete expressed that after forced time away from his sport, his mentality and priorities shifted toward preparing himself for a career path that did not involve sport. While he still intended to pursue professional sport, he became much more intentional about his academics during the pandemic and described how he had begun to prioritize class over practice:

I take way more time...and I kind of battle my coaches on school topics more, behavior-wise. So they'll be like, "Devon, we gotta be at practice." "Coach, I'm in class." ...So I'll lock in way more on my last 10 minutes 'cause every bit of it is crucial. (Devon, football)

The athletes consistently described the value that they found in being able to focus on various facets of their lives outside of sport.

### ***Opportunity to Explore New Activities and Find New Purpose***

The additional free time and time away from their sports also afforded athletes opportunities to engage in new activities and find purpose in other endeavors, thus shifting some of their attention away from sport in the process. Some athletes were very intentional about engaging in personal development, both through reflection and action:

I kind of made a personal decision...to use this time to kinda, you know, find out who I am and what is it that I can do with this time to be more productive. (Paris, track)

Some athletes became involved in human rights advocacy during the period of mass quarantine. One athlete was an active advocate for racial injustice at her university and within her athletic department. Some of the athletes were NCAA Division I student representatives who worked on initiatives to (a) ensure Division I athletes would receive an additional year of eligibility after losing a season due to the pandemic, (b) put safety measures in place to protect athletes from the virus upon return to sport, and (c) give collegiate athletes Election Day off so they would have

the opportunity to vote. These experiences appeared to be meaningful and rewarding for them during a time when, as one athlete put it, “athletes probably felt like...now they were useless”:

I held the meeting with some other student-athletes across our conference and stuff like that. And kind of just getting what they think and stuff like that, and just kind of...getting everyone together...And then really pushing our Division I [committee] members to vote for...giving spring athletes that eligibility back. (Toby, cross country)

### **New Choices: More Decisions**

As a result of pandemic-related changes, collegiate athletes were faced with more choices than usual. Typically, the structure of collegiate sports dictates many of the athletes' sport-related activities. However, removal of structured training environments and changes to athletic eligibility led athletes to make more decisions than they typically had to. The addition of new choices and more decisions has been divided into two subthemes: (a) managing training during quarantine, and (b) decisions about future due to the additional year of eligibility.

#### ***Managing Training During Quarantine***

Schedules determined by coaching staff and administrators usually provide collegiate athletes with a day-to-day roadmap, and coaches and sport staff typically develop and implement athletes' training plans while on campus. However, without this structure the athletes made more training-related decisions themselves when they were away from their usual training environments during mass quarantine. This autonomy motivated some of the athletes, who embraced the opportunity to make their own decisions regarding training:

Honestly I think like, there being like, nowhere to go work out or something, it kind of...pushed me to actually go do something myself outside. Or like... Like, do something

more than I would've originally, because I feel like when the gyms open, it's like, "Oh, I have this opportunity to go to gym, but do I really want to do it?" (Bryce, soccer)

On the other hand, others expressed that even when they "knew what they should have been doing" for training, making the decision to do those things on their own was difficult and often resulted in less time training:

I had so much time and I was just like, I knew that like I should have been doing like what I should have been doing, but I was just like...I don't know...it's hard to not like, compete or anything... It's hard to do everything on your own, and not be able to like, work with anyone... (Taylor, softball)

The additional training-related choices that athletes faced as a result of the pandemic and training independently of their coaches and teammates was viewed as an opportunity by some athletes, and a burden by others. These appraisals appeared to have influenced athletes' motivation to train during mass quarantine, and ultimately impacted their actions and the extent to which they trained.

### ***Decisions About Future Due to Additional Year of Eligibility***

Collegiate athletes can usually plan their athletic and academic careers around their athletic eligibility. However, in 2020 the NCAA granted an additional year of athletic eligibility to those athletes whose seasons had been cancelled due to the pandemic. While many of the older athletes expressed excitement and gratitude for the opportunity to compete for one more year, some were also faced with "extra little steps...in order to figure everything out." For instance, athletes who had been preparing to graduate in 2021 had to decide if they wanted to stay for one more season and begin to pursue graduate school at their current institution (which often was longer than a one-year commitment):

Just because in the place that I am, I'm gonna graduate with my like degree, and what I wanna do I don't necessarily...I can't go to grad school at my school...So it would just be like...I mean, I could make it work, but realistically, as of right now, like being able to add an extra two years to play one season...is like, a difficult thing to really convince [myself], if it's realistic to do. (Emma, soccer)

Further, athletes who had intended to pursue a career in professional sports now had to consider whether they wanted to play in college for one more year or attempt to make the transition to professional sports:

But I guess it's kind of something that I'm like, I'm weighing the options of like, do I just, play my last year as planned, and then go into the professional [volleyball] realm, or do I...take another year to try to improve more? So, I think some of that will just depend on kinda where I feel like I'm at come next season. (Megan, volleyball)

One athlete was grappling with a combination of both decisions, as he was unsure whether he would remain at his current school and pursue a master's degree while he played one more year, move on to play professional sport, or play professional sport while also pursuing a master's degree:

Obviously the whole goal is to play professional, and then if I find like, a master's program that's only in-person classes, then...it'd be kinda like, "uh, well, what do you want to do more? Do you wanna have a masters [?]" ... That would be the hard thing in the end. That's the decision I'd have to be making. (Bryce, soccer)

The athletes who were faced with these new decisions expressed that each option had implications, and they were trying to decide which decision would ultimately be the best for them. While all collegiate athletes eventually go through the transition out of college sports,

these athletes who were given the option of an additional year of eligibility were also faced with deciding when that transition would take place—a decision that athletes often do not have to make on their own.

### **Discussion and Implications**

The purpose of this study was to understand how Division I collegiate athletes experienced and had been impacted by the COVID-19 pandemic, particularly regarding sport. Through interviews with the athletes and careful analysis, three primary themes were identified that captured common experiences that they had during the pandemic: (a) Typical Structure: Gone, (b) Athletic Identity: Decentralized, and (c) New Choices: More Decisions. These findings provide a nuanced understanding of athletes' lives during the pandemic, while also presenting several practical implications for athletes, coaches, support staff, and leaders within Division I college athletics.

First, the experiences of the athletes in this study align with findings from previous studies in which researchers also interviewed athletes about their experiences during the COVID-19 pandemic (Gupta & McCarthy, 2021; Oblinger-Peters & Krenn, 2020; Whitcomb-Khan et al., 2021). For instance, a loss of structure and the uncomfortable experience of uncertainty regarding sport was common across studies of competitive athletes during mass quarantine (Gupta & McCarthy, 2021; Whitcomb-Khan et al., 2021). Athletes' experiences of reduced training motivation, as well as the opportunity that the lockdown provided to engage in new activities or spend more time on sport-related activities were also reflected in previous studies (Gupta & McCarthy, 2021; Oblinger-Peters & Krenn, 2020; Whitcomb-Khan et al., 2021). However, the current study was unique in its focus on Division I collegiate athletes. The experiences captured were specific to this population, such as altered academic experiences and

the decision of whether to utilize an additional year of athletic eligibility or not. Due to the timing of the interviews, this study also captured athletes' experiences of COVID-19 safety protocols and altered team dynamics upon returning to their usual training environments, which other studies did not. Many researchers collected data at an earlier time point during the pandemic, before athletes had fully returned to sport training and therefore could not speak to their experiences upon return (Gupta & McCarthy, 2021; Oblinger-Peters & Krenn, 2020; Whitcomb-Khan et al., 2021).

During the COVID-19 pandemic, and particularly during mass quarantine, the lack of structure that is typically so prevalent in collegiate athletes' lives appeared to impact the athletes' motivation to train for their respective sports. In alignment with self-determination theory (SDT; Ryan & Deci, 1985), which posits that motivation is dependent upon fulfillment of the basic psychological needs of autonomy, competence, and relatedness, the value of autonomy was apparent in the athletes' responses as some athletes thrived without a highly structured daily schedule. They spent their newfound free time engaging in sport training, rehabilitation, academic work, new activities, or intentional self-improvement (e.g., reading, meditation), and often seemed to experience joy or fulfillment in the process. There is strong existing support for the value of autonomy amongst athletes, as it is predictive of greater sport-related intrinsic motivation and intention to continue to participate in sport (Amorose & Anderson-Butcher, 2007; Hollebeak & Amorose, 2005; Keshtidar & Behzadnia, 2017). Other athletes seemed to be demotivated to train when removed from their typical training environments due to a lack of connection to others. A sense of relatedness, or positive relationships with teammates and coaches, is also predictive of self-determined motivation among athletes (Hollebeak & Amorose, 2005; Pacewicz et al., 2020). Many described the motivational value of being pushed

by a coach, competing against teammates, and receiving support from teammates in real time during sport training. Without this sense of relatedness, it seems they were unable to build motivation to train at the same frequency or intensity as usual. This may also reflect the adverse effect of external rewards on intrinsic motivation. If an athlete perceives a coach's feedback to be controlling, they will be less intrinsically driven to engage in those behaviors both in the coach's presence and when training alone (Amorose & Horn, 2000; Deci & Ryan, 1980; Mouratidis et al., 2010; Ryan, 1982). The extent to which athletes in this study experienced this dynamic with any of their coaches is unclear, but is a factor that may have influenced athletes' training during the pandemic and must be considered.

In light of these findings, it seems beneficial for coaches and support staff to help athletes develop a sense of personal control in instances when they are expected to train away from their typical training environments (e.g., holiday breaks) and even when they are training with coaches in their usual environments. Coaches can effectively support athletes' autonomy by providing athletes with various training tasks/activities that they can select from (Ahlberg et al., 2008), soliciting athletes' ideas and incorporating them into training, and praising athletes for engaging in positive behaviors autonomously (Conroy & Coatsworth, 2007). It has also been suggested that coaches can support athletes' autonomy by providing a rationale for their decisions, providing informational feedback, and creating thoughtfully-structured reward/encouragement systems (Mageau & Vallerand, 2003).

Additionally, based on the athletes' experiences of coach support (or lack thereof) during mass quarantine, it seems that athletes value when coaches express concern about their well-being regardless of whether it matters for athletic success in that moment. Social support—a multidimensional concept that can manifest in various ways but is ultimately intended to enhance

the well-being of the recipient—influences well-being directly, and also serves as a buffer that indirectly moderates the impact of stress on an individual (Barefield and McCallister, 1997; Hardy et al., 1991; Pines et al., 1981; Richman et al., 1993). Through both direct and indirect mechanisms, social support enhances injured athletes' psychological well-being, adherence to rehabilitation, and improved recovery rates (Chwalisz & Vaux, 2000; Shumaker & Brownell, 1984; Udry et al., 1997). Specifically, injured athletes have identified listening support, emotional support, reality-confirmation support, and task-appreciation support as most beneficial to their well-being (Clement & Shannon, 2011). During the COVID-19 pandemic, college athletes appeared to experience a lack of each of these four types of support coming from coaches—due to reduced number of contacts from coaches, and/or because this support was not present in interactions with coaches during mass quarantine. Findings from the current study also align with research demonstrating that athletes' satisfaction with their coaches and their sport experiences increase when coaches provide social support (Cranmer & Sollitto, 2015), as the athletes expressed dissatisfaction with their coaches when social support was not apparent. Particularly when athletes are isolated from their teams and traditional environments, such as during the pandemic, coaches may be able to enhance athletes' experiences of relatedness by intentionally contacting them, inquiring about their well-being (psychological, emotional, physical), validating their experiences, and expressing appreciation for the athletes' efforts (sport-related or otherwise) during that time.

Athletes' motivation to train during mass quarantine was also impacted by the uncertainty around when they would be returning to in-person training or competition. Some athletes consciously questioned the purpose of training or simply could not bring themselves to train regularly without a clear reason, reflecting that these behaviors are largely externally regulated



(Deci & Ryan, 1985a, 1985b). External regulation, as compared to identified, integrated, or intrinsic regulation (i.e., finding value, satisfaction, or joy in a behavior), is associated with more negative emotions, less sportsmanlike behaviors, and decreased persistence in sport as a result of reduced perceptions of autonomy (Vallerand & Losier, 1999). While every athlete in this study noted the challenge of uncertainty, some seemed to be more self-determined and subsequently more persistent in their training efforts because they had a positive perspective of training. There were no clear patterns as far as athletes who were more or less self-determined to train during the pandemic, as it varied across gender, year in school, and sport type. On a similar note, individuals in disaster situations with an internal locus of control have been found to cope with crisis better than those with an external locus of control (Rotter, 1966; Bandura, 1997; Perrin et al., 2009). It is possible that those athletes who were able to maintain motivation to train during the pandemic possessed a greater internal locus of control, which equipped them to face the challenges of the COVID-19 pandemic more effectively.

Athletic identity became less central for the athletes during mass quarantine, as they spent less time than usual engaging in sport-related activities and more time engaging in other endeavors. They generally seemed satisfied and even grateful for the opportunity to focus on other areas of their lives that they valued (or, came to value during the pandemic) or to pursue new activities. In this case, decentralization of athletic identity was a result of pandemic-related life changes. However, developing a multidimensional identity that is less contingent on one area (such as sport) generally “protect[s] a person’s self-concept in the event of failure in one dimension” (Heird & Steinfeldt, 2013; Linville, 1987). A strong athletic identity that does not detract from other areas of life may be ideal for athletes, as athletic identity can be beneficial for performance (Werthner & Orlick, 1986), self-esteem (Horton & Mack, 2000; Marsh et al., 1995),

enhanced body image, decreased anxiety, and athletic commitment (Horton & Mack, 2000). It is as a result of *overidentifying* with one's athletic identity that burnout, overtraining, training-related anxiety, disordered eating, and substance use issues can occur (Carter, 2009; Coakley, 1992; Coen & Ogles, 1993; Ford, 2007; Gustafsson et al., 2007; Hughes & Coakley, 1991; Watson, 2002). Considering the value of decentralization of athletic identity that college athletes noted during the pandemic, and the aligning research, college athletic departments and coaches might find it beneficial to support athletes in finding balance in their lives rather than overidentifying with their athletic identities. In order to support and encourage life balance, it could be valuable to introduce (or, re-introduce) life skills courses for college athletes that include mentorship from older athletes, and that focus on relevant and beneficial topics such as stress management and transitioning out of college (e.g., how to search for jobs, how the "real world" works; Forester et al., 2020; Narvarro, 2014). Further, some athletes perceived that the sport shutdown and period of mass quarantine allowed them to dedicate more time to their academics and prepare for non-sport career possibilities. Collegiate athletes, especially those participating in revenue-generating sports, have been found to be particularly at risk of not being prepared to make career decisions due to a strong emphasis on their athletic identities (Murphy et al., 1996). This finding further highlights the positive consequences that transpire when athletes can dedicate more time and psychological resources to non-sport endeavors, thus coaches may consider reducing training time for athletes to continue to focus on areas of their lives outside of sport (Adler & Adler, 1987). It would be of value for the athletes if college coaches and administrators encouraged and supported athletes' continual development of multidimensional identities. Although supporting athletes' development in areas outside of sport may seem contradictory to the ultimate goal of winning competitions, coaches can effectively support

athletes' development as well-rounded individuals using a transformational leadership approach (Bass, 1985). This is a person-centered coaching approach in which coaches strive to empower, inspire, and challenge athletes to achieve their potential (Bass & Riggio, 2006; Turnnidge & Cote, 2017). By integrating transformational coaching strategies such as idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (the 4 I's; Turnnidge & Cote, 2017), coaches can support athletes' development as individuals without taking significant time or focus away from athletic development.

Finally, some athletes were given an additional year of eligibility in what was supposed to be their final year academically and athletically, leaving them with an important decision regarding their careers and retirement from college athletics. While retirement from sport has been looked at using social-gerontological, thanatological, and developmental models, Taylor and Ogilvie's (1994) model of adaptation to athletic retirement comprehensively addresses the aspects of transition that are relevant to high-level athletes: (a) causes of retirement, (b) factors related to adaptation to retirement, (c) coping resources that influence the response to retirement, (d) quality of the adaptation to retirement, and (e) possible retirement crises and interventions. The cause of retirement among college athletes who ultimately decide not to utilize their additional year of eligibility is complex, because it is a combination of free choice and situational factors (e.g., timing is off between academic career and athletic eligibility). When retiring from sport, adaptation can be challenging due to loss of connection to teammates and coaches (Astle, 1985; Murphy, 1995; Werthner & Orlick, 1986) and loss of athletic identity (Brewer, Van Raalte, & Linder, 1993). Even when it occurs on a natural, expected timeline, transitioning into sport retirement can lead to anxiety, depression, sleep disturbance, and distress among retired athletes (Menke & Germany, 2019; Ramele et al., 2017). When faced with the option to remain

on their college teams for another year or not, the athletes hold the power as far as determining whether or not to retire from sport or leave college athletics for a possible professional athletic career. With this decision, there may be a burden of added pressure and stress beforehand, and rumination and doubt afterward that could manifest as a crisis upon retirement. Because of this, it is important that coaches, sport psychology practitioners, and others who advise athletes (officially or unofficially) maintain an awareness of the complex career-oriented decisions that athletes are facing as a result of receiving an additional year of eligibility at what was supposed to be the end of their college careers. It may be particularly beneficial to provide athletes with career counseling to aid in their decision making process, and even to provide guidance once they have made a decision about whether or not to utilize the additional year of eligibility. The learning theory of career counseling (Krumboltz, 1966) has been put forward as an effective framework to aid college athletes in their career transition, specifically by (a) encouraging athletes to explore new skills and interests, (b) administering assessment instruments to “formalize” athletes’ skills and interests, and (c) discussing the positive ways that unexpected events have influenced the athletes’ lives, and will continue to do so in the future (Shurts & Shoffner, 2004). The five-step career planning strategy (Stambulova, 2010) has also been proposed as an effective approach to aid athletes in their transitions out of sport. Using this framework, athletes are asked to create a timeline for their lives—past, present, and goals for the future—and then integrate each phase to create a strategy for their lives and careers moving forward (Stambulova, 2010). A complete list of suggestions for coaches and administrators based on athletes’ experiences during the COVID-19 pandemic is provided in Table 2.

**Table 2**

*Suggestions for coaches and administrators based on college athletes' experiences during the COVID-19 pandemic*

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Help athletes develop a sense of personal control and connection when they are training in their typical training environments and away from them (e.g., holiday breaks)

- *Provide athletes with various training tasks/activities that they can select from (e.g., select from a set of drills or exercises)*
- *Solicit athletes' ideas and incorporate them into training*
- *Praise athletes for engaging in positive behaviors autonomously*
- *Provide rationales for coaching decisions*
- *Create thoughtfully-structured reward systems*

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Express concern about athletes' well-being, regardless of how it relates to their athletic success in that moment

- *Listen to athletes without judgement and without giving advice (listening support)*
- *Provide comfort and care for athletes (emotional support)*
- *Confirm the athletes' perspectives of the situation, acknowledge that you can see it from their perspective (reality-confirmation support)*
- *Acknowledge the athletes' efforts (task-appreciation support)*

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Support athletes in finding balance in their lives, rather than overidentifying with their athletic identities

- *Provide life skills classes that include mentorship from older athletes, focus on stress management, and focus on transition out of college*
- *Reduce training time to encourage engagement in other endeavors*
- *Continually encourage work-life balance*

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Maintain awareness of the complex career-oriented decisions that athletes are facing as a result of additional year of eligibility

- *Provide career counseling services in which athletes are encouraged to explore new skills and interests*
  - *Provide career counseling services in which athletes are prompted to create a timeline of their lives and develop a strategy for life and career in future*
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### **Limitations and Directions for Future Research**

This study had several limitations that should be acknowledged. First, the study only captured collegiate athletes' reflections on their experiences up until the time of their respective interviews (October-December 2020). As the interviews were conducted mid-pandemic, athletes continued to have pandemic-related experiences afterward that could not have been discussed in the interviews. It would be valuable to conduct similar qualitative research in the future to understand the longer-term impact of the pandemic on collegiate athletes whose seasons were directly affected at the start of the pandemic. Second, the athletes who participated in this study

provided a highly diverse sample in terms of personal characteristics, and the sports, institutions, and conferences that they represented. As a result, the findings of this study are generalizable to Division I collegiate athletes but do not capture experiences during COVID-19 that may be more specific to particular athletes. By interviewing more homogenous groups of athletes and identifying common experiences, researchers would be able to develop a deeper understanding of how particular groups of athletes have been impacted by the pandemic. Based on some of the unique perspectives that emerged in this study, it would be valuable to conduct interviews with athletes who (a) have the potential to play in a major professional sports league after college, (b) were freshmen when the pandemic began, and (c) were in their final year of eligibility when granted an additional year due to COVID-19.

The findings of this study have also highlighted an area for future research related to collegiate athletes' experiences unrelated to the pandemic. Specifically, the findings present a need to explore the academic experiences of collegiate athletes who compete in the major American sports (typically, revenue-generating sports). In the current study, these athletes expressed that the pandemic afforded them more time and energy to focus on academic endeavors—which they noted was distinctly different when compared to their typical experiences as student-athletes. Thus, future research should be conducted to explore these athletes' perceived opportunities and limitations to focus on academics, and their motivation to do so. As the state of both the COVID-19 pandemic and college sports continue to change, it will be beneficial to understand collegiate athletes' experiences during the pandemic to support their success and well-being most effectively, both short term and long term.

### **Conclusion**

This study was designed to explore Division I college athletes' experiences of the COVID-19 pandemic, and to better understand the impact that the pandemic had on their sport participation. Interviews were conducted with eleven athletes from various sports and institutions, and inductive analysis of these interviews revealed three overarching themes that were captured in the athletes' experiences: (a) the removal of the structure that athletes were used, (b) athletic identity became less central to the athletes' lives, and (c) the athletes faced more decisions as a result of new choices that they were presented with. The findings highlight the impact that autonomy and a sense of connection can have on intrinsic motivation to train for sport, particularly in a situation when athletes are expected to train on their own. The results also demonstrate the value of a multidimensional identity, in which athletes maintain a connection to their sport while also engaging in other activities. Finally, it is clear that college athletes will face new career decisions due to the additional year of athletic eligibility that they were granted, and should be supported before, during, and after making those decisions to facilitate a smooth transition. The findings from this qualitative exploration of athletes' pandemic experiences can be translated into helpful information for college coaches and athletics administrators, in an effort to continually support athletes during and after the COVID-19 pandemic and any future disruptions to collegiate athletics.

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## **Appendix A**

### **Extended Literature Review**

This literature review addresses various research areas associated with or related to college student-athletes' experiences based upon how their sporting lives were impacted by the novel coronavirus (COVID-19). It begins with an introduction of COVID-19 and its general impact on the United States and the world. The review then broadens to include the characteristics and psychological impact of disasters before funneling into a description of what constitutes an epidemic specifically. This section also explores the cognitive, emotional, and behavioral responses that have been reported during epidemics in the past. Following this, the focus shifts to athletes' responses to sport injury (including career-ending injury) and forced retirement from sport, as these situations can lead to a pause in sport participation similar to what collegiate athletes experienced due to the national and organizational safety precautions put in place in response to the virus. To provide greater context for the current study, the review then outlines the responses of professional sport organizations, the National Collegiate Athletic Association (NCAA), and institutions of higher education to COVID-19. Finally, existing research regarding the impact of COVID-19 on athletes is discussed in order to explain what is already understood about athletes' experiences during the pandemic.

#### **Overview of COVID-19**

According to the secretary general of the United Nations, the coronavirus (COVID-19) pandemic is "the most challenging crisis we have faced since the Second World War" (Guterres, 2020). On January 30, 2020, the outbreak of the COVID-19 virus was declared by the World Health Organization (WHO) to be a public health emergency of international concern. On March 13, 2020, President Trump declared a nationwide emergency and approved all states and

territories for major disaster declarations in order to receive assistance related to COVID-19 (Federal Emergency Management Agency, 2020). As of June 2021, the virus—which spreads person-to-person—has claimed nearly 4 million lives and there have been over 175 million known cases globally (Worldometer, 2021). Within the United States, the virus has led to over 613,000 deaths and 34 million known cases. COVID-19 has not only been a major threat to public health but has also led to a global economic crisis and concerns about international peace and security.

In June 2020, the global economy was projected to contract by 4.9% in 2020 as a result of businesses halting, industries slowing, and nations being locked down in an effort to slow the spread of the virus (International Monetary Fund, 2020). For reference, prior to the spread of COVID-19, the global economy was projected to grow by 3.3% in 2020. During the entire four-year span of the Great Depression, the global economy contracted 10 percent (Rappeport & Smialek, 2020). The pandemic also seemingly played a role in ending the longest recorded economic expansion in the United States, which began in 2009 and reached a peak in February 2020 before declining. This was quickly followed by a 9.1 percent drop in national economic output—the steepest quarterly drop in recorded history (Bauer et al., 2020; Bureau of Economic Analysis, 2020). For context, prior to this there had not been a drop larger than 3 percent in recorded history (record keeping began in 1947). Further, UN secretary general Antonio Guterres also warned of the threat of opportunistic terror attacks, political tensions as a result of delayed elections, and worsening of existing human rights issues (Davidson, 2020).

### **Disasters: Characteristics and Psychological Impact**

To understand the impact of the COVID-19 pandemic, we must first clarify what “disasters” are and further classify epidemics/pandemics. The international spread of COVID-19



has commonly been referred to in the media as a “global crisis,” and the pandemic can absolutely be classified as a disaster. In a review of studies that measured the relationship between mental illness and individuals’ experiences during times of disaster, situations were considered disasters if they (a) had a relatively sudden and clear onset, (b) were caused by external, unintentional forces, and (c) impacted a group of people (Rubonis & Bickman, 1991). Disaster research frequently refers to *victims*, so it is of value to note who might be considered a victim, and relate this information to COVID-19. The classification system that is most inclusive of potential victims is that of Taylor and Frazer (1981, 1982; Taylor, 1987). This system identifies six groups based on their experiences associated with the disaster: (a) primary victims who are directly exposed, (b) those with close personal ties to primary victims, (c) responders, (d) grieving community at large, (e) bystanders who display morbid interest in other peoples’ struggles or who act out, and (f) those who simply by chance did not become primary victims, who may have unintentionally caused others to become primary victims, or who are clinicians and researchers whose professional demands have increased as a result of the disaster. Based on this classification, in the case of a pandemic such as COVID-19, most everyone would be considered a victim. Due to all the possible ways in which victims can be impacted by a disaster, one area of concern when it comes to mitigating disaster-related challenges is the psychological impact.

Individuals respond to disasters differently based upon the type and phase of the disaster they are experiencing, combined with their individual traits and experiences. A disaster causes a collective stress for many people (Kinston & Rosser, 1974; Taylor, 1987). From this collective perspective, particular psychological responses have been found to occur at different phases of a disaster (Tyhurst, 1951; Glass, 1959). For instance, during the impact phase, general responses

include remaining calm, collected, and busy (12–25% of people), being stunned and bewildered (75%), or exhibiting inappropriate behavior, confusion, anxiety, and hysteria (12–25%; Tyhurst, 1951). This differs from the post-impact phase, during which grief and depression are more common. While this guide provides general response trends across disaster situations, the psychological impact of disasters can differ based on individual factors. For instance, those with an internal locus of control appear to cope better with crisis compared to those with an external locus of control (Rotter, 1966; Bandura, 1997; Perrin et al., 2009).

Studying the psychological challenges suffered by disaster victims is important not only to understand the psychological effects of disasters, but also to inform the design of practical interventions and implementation of governmental policy (Rubonis & Bickman, 1991). A widely endorsed response to disaster is psychological first aid (PFA), which aims to reduce stress and improve coping skills in crisis situations (Institute of Medicine, 2003; Snider, van Ommeren, & Schafer, 2011). Key components of PFA include the assessment of a person's ability to function, triage, intervention, and provision of resources (Everly & Flynn, 2005; Everly & Lating, 2017). These steps are designed to be taught to and implemented by those who are assisting others during crisis regardless of their psychology or counseling background. While PFA has been found to increase personal feelings of resilience and preparedness, improve community resilience, and reduce acute anxiety (Everly et al., 2016; Everly et al., 2014; McCabe, Semon, Lating, et al. 2014; McCabe, Semon, Thompson, et al. 2014), it is important to continue to gather information about individual responses to particular disasters in order to further refine these programs—particularly for “unseen” populations outside of patients and healthcare workers (Sim & Chua, 2004).

### ***Epidemics: Characteristics and Psychological Impact***

Epidemics, including pandemics such as COVID-19, are disasters with natural causes (rather than industrial or humanistic) and people as their element (i.e., the means through which they occur and spread; Taylor, 1987, p. 537). These disasters impact more people worldwide than natural or human-caused disasters (International Federation of Red Cross and Red Crescent Societies, 2000; Norris et al., 2006). They can lead to region-wide reactions of panic, and community-wide grief due to shared loss of lives (Ramalingaswami, 2001; van Bortel et al., 2016). Epidemics generally have a pattern of escalating threat, eventual peak harm or loss, and then a gradual decline of the threat; this pattern distinguishes them from other more rapid and short-lived disasters (i.e., terrorist attacks, earthquakes). The social and political response to an epidemic is also unique, as quarantining in place is often suggested or required in order to limit further spread of the disease (Khan, 2004). This near-global approach of distancing from others was also implemented throughout the COVID-19 pandemic, thus limiting interactions to only those considered to be “essential” and leading to mass cancellation of in-person events and gatherings. This tactic of quarantining often results in confinement and inability to interact with others, which can lead to feelings of loneliness and isolation (Hawryluck et al., 2004). Beyond these commonly reported feelings, individuals who must adjust their lifestyles due to an epidemic demonstrate a range of responses.

The cognitions, emotions, and behaviors that people experience during epidemics can vary between individuals, and this is shown in studies conducted during or shortly after the outbreak of severe acute respiratory syndrome (SARS) in 2003. SARS spread internationally at that time, though it primarily impacted Asia and Canada. The virus was uncommon with just over 8,000 cases worldwide, but the mortality rate was approximately 10 percent when contracted (Center for Disease Control and Prevention, 2003). In a study of 72 Chinese

undergraduates (31 men, 41 women,  $M_{age} = 21.14$  years,  $SD = 5.99$ ), changes in state anxiety and coping responses were reported each week for four weeks during the SARS outbreak (Cheng & Cheung, 2005). Hierarchical linear modeling showed a sharp increase in anxiety around the time of initial outbreak, which could be predicted from individuals' trait anxiety. While anxiety remained higher than usual over the course of the study, over the last three weeks there was a trend of gradual decline in anxiety. Additionally, greater avoidance behaviors such as avoiding public spaces and not shaking hands with others were predictive of lower state anxiety ( $b = -.57$ ,  $t(67) = -3.62$ ,  $p = .001$ ). Contrarily, hygiene behaviors such as wearing a mask and hand washing were predictive of increased state anxiety during the epidemic ( $b = .33$ ,  $t(67) = 2.23$ ,  $p = .026$ ). The researchers posited that due to the largely uncontrollable nature of an epidemic like SARS, a more adaptive and stress-reducing approach might be to avoid the situation rather than carry out potentially futile behaviors to try to change the course of the event (Cheng & Cheung, 2005; Lefcourt, 1992). Thus, a person's desire to control the situation could impact his or her psychological and emotional response.

In a unique study of positive mental health effects of the SARS epidemic, Lau, Yang, Pang, and Wing (2005) explored changes in social support and mental health-related lifestyle among adults in Hong Kong. Participants ( $N = 818$ , 407 men, 411 women) were asked to compare their situations in the two months before and after the initial outbreak of the SARS epidemic. Overall, there appeared to be positive improvements in social support and mental health habits: 28.4% reported increased support from friends, 39.1% reported increased support from family, 35.3% reported sharing feelings more often with family (and 22% with others), and 64.7% reported caring more about family members' feelings. While many other participants reported no increases, only 0.4% to 6.0% reported declines in these areas. Additionally, nearly

66% of participants reported that they were paying greater attention to their mental health; 35% to 40% reported that they were spending more time resting, relaxing, and exercising. These improvements were positively associated with post-traumatic stress disorder (PTSD) characteristics, possibly because those who were more strongly impacted by the epidemic used their social support and made lifestyle changes as buffers against the psychological and emotional effects.

The influence of demographic factors on responses during an epidemic have varied. For instance, Chinese adults 60 years or older reported higher levels of depression compared to adults in the 35–59 age range during the 2003 SARS outbreak (Lee, et al., 2006). Regarding PTSD symptoms, there were no differences based on age and gender among those who lived through the SARS outbreak in Hong Kong (Lau et al., 2005). However, males were found to be less likely than females to share their feelings with others when feeling down during the SARS epidemic ( $p = 0.002$ ; Lau et al., 2005), highlighting a gender difference in behavioral coping responses.

In a study of American college students, 295 participants completed a questionnaire during the COVID-19 pandemic (April-May 2020) which measured academic concerns, emotional well-being, personality, and perceptions and behaviors related to COVID (Clabaugh et al., 2021). Females (who represented 80 percent of the respondents) reported higher levels of distraction in their home learning environments compared to males, as well as more perceived stress, worse coping, higher neuroticism, a more severe perspective on the pandemic, and greater engagement in risk management behaviors. The authors surmised that female participants' increased perceived stress and coping abilities may be due to their higher levels of neuroticism in general, or may be a result of a social expectation that women take on domestic and caretaking

roles at home (on top of their other commitments) as compared to men (Clabaugh et al., 2021).

Further, racial-ethnic minority groups and those of lower socioeconomic status may be at increased risk of negative psychological impact resulting from an epidemic (Perrin et al., 2009). This is an area of limited empirical study but seems to be a strong possibility considering the increased effects of epidemics on these communities. For instance, during the influenza outbreak of 2009, Native Americans died at a rate four times greater than the national rate (Center for Disease Control and Prevention, 2009). During the current pandemic, a disproportionate number of black Americans have been diagnosed with COVID-19 and have died from the virus at greater rates than white Americans (Dyer, 2020; Center for Disease Control and Prevention, 2020). Black-majority counties have three times the number of COVID-19 cases and nearly six times the number of COVID-19 deaths compared to White majority counties in the United States (Williams, 2020). In their study of college students during the COVID pandemic, Clabaugh, Duque, and Fields found that students of color (approximately 28 percent of total respondents) reported greater concerns about their academic careers in the future as compared to White students and felt that they would be more effected by the virus if they were to contract it (2021). However, students of color reported less frequent engagement in risk-management behaviors, such as hand washing. There were no differences in reported perceived stress or coping related to the pandemic between racial-ethnic groups, however, demographic characteristics such as age, gender, and race/ethnicity must continue to be considered due to their impact on individuals' experiences.

### **Disruptions to Sport Participation: Injuries, Forced Retirement, and Olympic Boycott**

The COVID-19 crisis and the resulting response of the NCAA and its member institutions were unprecedented and disrupted college student-athletes' regular engagement in their sports. Other situations that disrupt athletes' sport participation include suffering an injury, being cut from a team, or being part of a team that is cut altogether. For athletes who intended to return to play after the pause that resulted from the pandemic, the experience logistically mirrored suffering an injury as it resulted in an inability to compete in sport for an undetermined length of time, an uncertain future, and likely being forced into a different physical routine. As a result of the changes, some athletes were even forced into an unexpected retirement—like what an athlete might experience upon sustaining a career-ending injury, the termination of a sports program, or an Olympic boycott. Considering these parallels, the following section presents a review of literature regarding athletes' responses to injury, unanticipated retirement from sport, and perceived impact of an Olympic boycott on athletes' lives and careers.

### *Athletes' Experiences of Sport Injury*

To understand athletes' responses to COVID-19 and the meanings that they derive from the experience of no longer participating in their respective sports, the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998) is most relevant due to its consideration of various possible responses to an unexpected hiatus from sport participation. The integrated model also considers the influence of pre-injury and post-injury factors on an athlete's cognitive, emotional, and behavioral responses to injury, which determine the course of the athlete's psychosocial and physical recovery (Wiese-Bjornstal et al., 1998). The pre-injury factors derive from Andersen and Williams' stress response model (1988), which proposes that an athlete's personality, coping resources, history of stressors inside and outside of sport, and any mental skills interventions that they have had contribute to the athlete's

response to a potentially stressful sport situation. An athlete's response includes his or her cognitive appraisal of the situation and the physiological and attentional changes that occur, which can influence the athlete's risk of incurring an injury. Wiese-Bjornstal and colleagues (1998) integrated Andersen and Williams' model into their own, acknowledging the role of an athlete's background and history on their response to injury.

According to the stress response model, athletes' lived experiences of their injury and recovery processes are best understood directly, through phenomenological accounts from the athletes themselves. According to the integrated model of sport injury and rehabilitation, athletes' cognitive appraisals influence their emotional responses and ultimately their behavioral responses to injury. While this cyclical pattern is commonly observed, these experiences are dynamic and do not always play out this way (i.e., emotions and behaviors can influence cognitive appraisals, behaviors can influence emotions; Wiese-Bjornstal et al., 1998). Athletes can describe their emotional and behavioral responses, while the meanings that they derive from the injury and rehabilitation experience can be found through expression of their cognitions during and upon reflecting on the experience. Notably, athletes' reported experiences tend to fluctuate from onset of injury through re-entry to physical activity.

According to the integrated model, various personal and situational factors influence how an athlete views and responds to their injury and the rehabilitation process. Personal factors include characteristics of the injury itself as well as the unique characteristics of an athlete, such as demographic variables and personality traits. Situational factors also influence athletes' responses to injury and include characteristics of the sport, social spheres, and environments in which the athletes exist and interact. These factors can influence athletes' appraisals, emotions, and behaviors in response to injury and rehabilitation, whether an athlete is aware of them or



not. While the following sections focus on athletes' appraisals of and responses to injury, personal and situational factors play an important role and therefore will also be discussed when relevant.

**Onset of Injury and Diagnosis.** Many studies have gauged athletes' initial responses to injury and receiving an official medical diagnosis (Clement et al., 2015; Wadey et al., 2011; Wadey et al., 2012; Tracey, 2003; Walker, 2006; Grindstaff et al., 2010). At the very onset of injury, the most common experiences that athletes have reported are negative cognitions and emotions: shock, fear, anger, frustration, and confusion (Clement et al., 2015; Mainwaring, 1999; Tracey, 2003; Wadey et al., 2012). At times, athletes have demonstrated denial that the injury is as severe as it is, or question what they had just done that caused the injury to happen (Tracey, 2003; Wadey et al., 2012). In a study of 10 formerly-injured athletes from various sports ranging from club to international levels of competition (ages 20–23 years, injuries lasted five weeks to nine months), Wadey and colleagues (2012) found that athletes with identified with more hardiness generally responded to injury and rehabilitation in ways that were more desirable than their less hardy counterparts; however, the only time when both groups seemed to have mirroring responses was immediately upon suffering the injury. College athletes have also reported enjoying the attention they received immediately after the injury occurred, but within two days were “over” it (Tracey, 2003).

As the reality of injury sets in and athletes receive their diagnosis, new responses begin to arise. Athletes' cognitive appraisals of the situation, particularly as they become aware of the severity of their injuries, can vary considerably and thus also lead to a range of emotional responses (Clement et al., 2015). Appraisals that reportedly lead athletes to have more negative emotional responses, such as fear and anxiety, include perceiving an injury as *very severe*

(whether or not this has been confirmed by a medical professional) and limiting to their ability to play, or feeling out of control of the situation (Clement et al., 2015; Mainwaring, 1999). Some athletes remain optimistic that the injury is not very severe and will have little impact on their participation, which leads to more positive emotional responses albeit not necessarily in line with the physical reality (Clement et al., 2015; Johnston & Carroll, 1998a). In a study of four injured male athletes (19–29 years) from sports clubs in the United Kingdom, all the athletes felt that they were not receiving all pertinent information around the time of receiving their diagnoses and felt a need to know what was happening (Walker, 2006). With limited information about what the future holds and the novelty of a new stressor, the period from injury to diagnosis appears to be cognitively and emotionally challenging for athletes.

As identified by Clement and colleagues (2015), receiving the diagnosis from a professional appears to be a common emotional turning point for collegiate athletes: for some it leads to optimism in knowing that they will be able to return to play shortly, while for others it leads to feelings of frustration and sadness associated with an extended period of time away from their sport and/or team. This response can also differ based upon an athlete's previous experiences with injury; Johnston & Carroll (1998a) found that athletes with similar prior injuries responded with dissatisfaction if the diagnosis did not align with their beliefs, while those who had never suffered a similar injury responded with either relief, or anxiety and depression depending upon the prognosis. While not reported, it should also be noted that some athletes may experience a sense of relief as a result of becoming injured and unable to participate in sport, particularly if they have been experiencing stress as a result of sport-related pressure (Brock & Kleiber, 1994; Peterson, 2009).

Behaviorally, athletes exhibit a range of responses upon suffering an injury and receiving the diagnosis. In Walker's (2006) study, the injured athletes reported implementing negative coping mechanisms such as pessimistic thoughts, positive mechanisms such as occupying their time with productive activities, and avoidant coping strategies such as getting away from their sport environment. Athletes also frequently report seeking social support as a coping response as they attempt to manage their emotions surrounding a newly sustained injury. Social support in this case generally comes from family, friends, teammates, coaches, and athletic trainers, though the specific members of the supporting cast varies from athlete to athlete (Clement et al., 2015; Gould et al., 1997; Johnston & Carroll, 1998b; Tracey, 2003; Wadey et al., 2012; Walker, 2006). Specifically, listening support and shared social reality with other injured athletes have been identified as the most desired and received types of support during the early stages of an athletic injury—although what athletes reportedly share with others varies by gender (Johnston & Carroll, 1998b) as male athletes reportedly discuss their emotions around injury less than female athletes.

**Rehabilitation Phase.** Upon receiving a diagnosis and entering the rehabilitation phase, athletes' responses can range considerably and often play an important role in the athletes' re-entry into sport. This phase lasts for different lengths of time depending upon the severity of an athlete's injury, which in itself alters how an athlete responds to the situation (Crossman et al., 1995; Johnston & Carroll, 1998a; McDonald & Hardy, 1990; Quackenbush & Crossman, 1994). Athletes have frequently reported experiencing frustration, boredom, isolation, anger, fear, depression, anxiety, and reduced self-esteem at some point during their rehabilitation (Clement et al., 2015; Gould et al., 1997; Granito, 2002; Grindstaff et al., 2010; Mainwaring, 1999; Podlog et al., 2015; Tracey, 2003; Wadey et al., 2012; Walker, 2006). However, athletes'

reactions are not limited to those emotions typically perceived as negative, as some athletes have reported feelings of optimism (Mainwaring, 1999; Walker, 2006). In fact, athletes' moods and emotions often tend to improve over the course of the rehabilitation period as they make progress, as they begin to feel more optimistic, more confident, and more like themselves prior to the injury (Tracey, 2003; Wadey et al., 2012; Walker, 2006).

**Relationships.** To some extent, injured athletes' emotions hinge on the social support they experience from teammates, coaches, and significant others. For instance, being estranged from their teammates due to their inability to participate can present a challenge for competitive athletes, particularly when their social lives are heavily intertwined with their sport experiences (Granito, 2002; Mainwaring, 1999). In a study of injured Division II athletes, participants either felt supported by their teammates or pressured by their teammates in a way that they believed negatively impacted their recovery processes (Granito, 2002). In the same study, gender appeared to play a role in the way social support was experienced: athletic trainers observed that the culture of male sports led them to "rag on" injured athletes with statements such as "you could be out here right now" while female athletes were described as more encouraging of injured teammates (Granito, 2002). It is also possible that unique dynamics develop between injured and uninjured teammates, for better or worse. For instance, an injured Division I football player described being pressured by teammates to take his pain management medication in ways not recommended by professionals and needing to hide his pills for fear that his teammates would find and use them in that way (Grindstaff et al., 2010).

Coaches also have an impact on athletes' emotions, either negatively or positively. Some athletes have reported feeling supported by their coaches while they recovered, while others experienced a lack of support. Specifically, coach support included calling the athletes to check

on them and their rehabilitation process (Clement et al., 2015), while lack of support included coaches blaming the athlete for being hurt or ceasing to contact the injured athletes (Granito, 2002; Grindstaff et al., 2010). In a study of 31 injured collegiate athletes (16 female, 15 male,  $M_{age} = 20$  years), 94% of the women had negative perceptions of how their coaches treated them during the injury while only 20% of the men reported similar views. The women described coaches ignoring them (e.g., “I didn’t exist because I was hurt,” “I kind of became invisible to the coaches”), being unsympathetic, inferring that the athlete was faking an injury, and in one case even suspending the athlete for “not working hard enough during therapy” (Granito, 2002, p. 250). On the other hand, the men generally described their coaches as being communicative, supportive, “concerned,” “understanding,” and patient (e.g., “I really noticed that the coaches were willing to work with me...they gave me time to get back healthy”; Granito, 2002, p. 250).

Significant others outside of sport can also influence athletes’ experiences during rehabilitation. In Granito’s (2002) study of male and female athletes, over half of the male participants reported that they received positive support from a girlfriend (no females made mention of significant others, but it was unclear if that was a function of not being in romantic relationships). Additionally, in many cases it seems athletes seek emotional support from and vent frustrations to family and friends (Clement et al., 2015; Grindstaff et al., 2010; Wadey et al., 2011). However, college athletes and athletic trainers have noted that parents can also become a source of stress for recovering athletes, putting pressure on them in the recovery process (Granito, 2002). Interactions with their social networks outside of sport can be valuable for injured athletes at times, but at other times can present their own challenges.

Injured collegiate athletes also spend a great deal of time around other injured athletes and sports medicine staff. First, athletes and trainers seem to find a lot of value in the

relationships that the athletes develop with other injured athletes during the rehabilitation process. One athlete even described that being with other athletes in the training room felt “like a support group” (Granito, 2002, p. 73). Sport psychology professionals actually recommend rehabilitation partners and injured athlete support groups as a way for injured athletes to receive social support from others who are going through a similar experience (Clement et al., 2011; Granquist & Stadden, 2015). Additionally, sports medicine professionals play an important role in athletes’ recovery from injury and their return to play. Therefore, any difficult experiences or mistrust involving medical personnel can be very frustrating for injured athletes (Johnston & Carroll, 1998a). When athletes trust their athletic trainers and have confidence in the rehabilitation program, both athletes and athletic trainers have reported that it enhances the process (Granito et al., 2001) and athletes have reported greater confidence when returning to sport (Podlog et al., 2015). Generally, athletes describe needing more emotional support in the early stages of injury and rehabilitation, with that need decreasing over time aside from the occasional setback (Johnston & Carroll, 1998b).

**The Process of Rehabilitation.** Many injured athletes intend to return to play, therefore the rehabilitation process itself is one that can elicit various cognitive, emotional, and behavioral responses. Psychologically, athletes’ appraisals of the rehabilitation process itself can vary due to personal, situational, and social factors. Some athletes perceive rehabilitation as something to look forward to, or as a challenge that will lead to their growth; others see the process as difficult to the point that it leads to frustration. This can influence how athletes respond behaviorally during rehabilitation, as frustration and fear can cause athletes to ease into exercises with more caution (Clement et al., 2015). Adherence to rehabilitation is also influenced by athletes’ appraisals and resulting emotions. This was shown in a study of athletes who had undergone

knee surgery, as athletes who assessed themselves as having poor abilities to cope with their injuries also reported greater mood disturbance; this emotional disturbance was inversely related to athletes' rehabilitation attendance (Daly et al., 1995). Similarly, athletes who scored low in hardiness did not adhere (e.g., did too little or too much) to their rehabilitation programs more-so than those who reported greater levels of hardiness, which had a negative impact on recovery (Wadey et al., 2012). The researchers noted denial and mental disengagement as some of the cognitive strategies that led to reduced adherence. In a study consisting primarily of college student-athletes, Johnston and Carroll (1998a) found that injured athletes' appraisals of their progress during rehabilitation influenced adherence: those who perceived it as successful felt happy and relieved, while those who had negative views of their progress experienced frustration, depression, and apathy. The former reported greater adherence, while the latter reported poor adherence. Other personal factors such as gender can also impact athletes' appraisals of the rehabilitation process. For instance, athletic trainers have observed that male athletes often have more opportunities to continue sport participation post-college, which can lead to a different perspective and approach compared to their female counterparts (Granito, 2002). One of the trainers interviewed described female athletes as having the reaction of "don't push it, because you have the rest of your life to live" (p. 74), suggesting that they may not approach the rehabilitation process as aggressively as male athletes.

Certain behaviors seem to be more conducive to a positive rehabilitation outcome, helping athletes effectively adhere to the process and contributing to positive affect as well. Among elite skiers who had been injured, a majority described behaviors that the researchers deemed "driving through" or directly facing the injury and rehabilitation process (Gould et al., 1997). This included doing many activities as they normally would (e.g., driving,

walking), tapping into their own motivation or motivation from others (including proving others wrong), setting and working toward rehabilitation goals, and focusing on training-related aims like getting fit and completing rehabilitation exercises. Beyond helping them in the process of rehabilitation, the athletes also carried out some of these behaviors to sustain a sense of self-worth and confidence (Gould et al., 1997). Competitive athletes have also reported using visualization to mentally prepare while they cannot prepare physically, exercising patience with themselves and the recovery process, dealing with and expressing emotions related to their injuries, and accepting their injuries (Podlog et al., 2015; Wadey et al., 2011). These behaviors increase athletes' perceptions of their own psychological readiness to return to sport.

**Modified Sport Participation.** Moderate and severe injuries generally prevent athletes from participating in many of the physical aspects of sport, though often they can still engage in other sport-related activities. Coaches can mandate athletes to attend team practices or can give athletes the option to attend or not. Some injured athletes opt not to attend because it is emotionally challenging to even consider attending. In a study of injured Division III college athletes, those who did attend practices reported that it reminded them of their decreased fitness (real or perceived) and caused them to feel like they were letting their teammates down, which led to feelings of anxiety, depression, or frustration (Tracey, 2003; Wadey et al., 2012). Interestingly, regardless of reported hardiness, athletes have experienced negative emotions as a result of watching others train and compete while they themselves are missing the opportunity to participate (Wadey et al., 2012). Despite these challenges, athletes have also reported that being around their teams enhanced their feelings of well-being via the support that they received from teammates (Tracey et al., 2003). Athletes who cannot actively participate in practice have also described improved relationships with their coaches, as they are able to see



and interact with the coaches on the sideline more frequently (Wadey et al., 2011). Additionally, some athletes view rehabilitation time as an opportunity to improve sport-related skills that they normally cannot focus on. For instance, athletes have reported improving their technical and tactical awareness while they attend practices and games as spectators or assistants, becoming more aware of the skills they need to work on, and increasing sport confidence as a result (Wadey et al., 2011). Ultimately, injured athletes' unconventional involvement in sport-related activities can be a difficult or beneficial experience, or a blend of both.

**Free Time.** Athletes who suffer an injury are typically faced with more free time and less structure as a result of their inability to participate as frequently in sport-related activities. This time away from sport can be interpreted as an opportunity to focus on interests and responsibilities outside of sport, or as a span of time during which athletes need to distract themselves (Gould et al., 1997). Upon reflecting on the value of their time in rehabilitation, formerly injured athletes have reported that the free time allowed them to spend more time with family and friends, meet new people, spend more time on academic work, and to reflect on their own (Wadey et al., 2011). They felt that this led to improved relationships with their existing social networks, led to expanded networks, improved academic performance, and provided new perspective as they reflected on future goals and aspirations. Similarly, injured Division III athletes acknowledged that their time away from sport was “good timing” in a way, because it allowed them to focus more on their academics and ultimately led to improved attitudes in general (Tracey, 2003).

Other athletes can view the expansive free time as boring and seek distractions in order to avoid facing the challenging emotions that can arise during this time (Gould et al., 1997; Wadey et al., 2012). For example, competitive athletes who were reportedly low in hardiness coped

with the difficult thoughts and feelings by “mentally disengaging” via watching television and socializing (e.g., going to the movies, drinking alcohol; Wadey et al., 2012). Although these activities provided temporary distraction, one athlete stated, “It was straight back to reality when you walk through your door and see your trainers [shoes] on the floor. I’m still injured. It hasn’t gone” (Wadey et al., 2012, p. 886). In an effort to distract themselves, other athletes enrolled in school or sought a change of scenery by going on vacation (Gould et al., 1997).

**Athletes’ Responses to Career-Ending Injuries.** Athletes who experience career-ending injuries share some of the aforementioned responses to injury, such as loss, confusion, isolation, guilt, anger, and/or relief in some cases (Brock & Kleiber, 1994). However, they often express other thoughts, emotions, and behaviors as a result of the situation. Arvinen-Barrow and colleagues (2017) found that for rugby players who had suffered career-ending injuries (1.5-3 years prior to the study), acceptance of injury seemed to happen in the following stages: (a) shock, (b) concerns about long-term health, (c) concerns about future, (d) sadness and grief, (e) anger and frustration, and (f) an ultimate sense of freedom from their sport-related stressors upon the decision to retire. This array of extreme emotions can be partially due to the severity of the injury, as injuries that lead to career termination are often severe. This can lead to major lifestyle changes, such as the inability to complete standard daily activities; for instance, a severely injured football player in Walker’s (2006) study reported not being able to make it to the bathroom without assistance. An injured athlete can also experience humility and embarrassment as a result of relying upon much more care and assistance than usual (Walker, 2006). Out of five injured athletes who were interviewed, only the aforementioned football player (who was the only athlete with a career-ending injury) expressed grief and trauma. Upon being informed that his playing career was over, his response included, “I’ve lost a major part of

my life and I'm never going to get it back...I just feel really depressed and low. What am I without football? A permanent cripple. I've lost something that was so important to me" (Walker, 2006).

Another common response to career-ending sport injury is apathy in other areas of life, which falls in line with the experience of depression. An example of this comes from a rugby player who was forced to retire at 21 years of age due to injury; the athlete stopped attending classes, watched television all day, and drank alcohol to the point of such concern that he ultimately contacted an alcohol abuse help line (Johnston & Carroll, 1998a). In a study of retired NCAA Division I athletes who suffered career-ending injuries, the participants described experiencing difficult emotions related to losing the status associated with being an athlete. The researchers described this loss as follows: "descent into ordinariness from the heights of extraordinary is still a fall" (Brock & Kleiber, 1994, p. 422). Athletes whose careers ended due to injury also reported experiencing a sense of loss in identity as well as loss of the social circles that they had within athletics (Arvinen-Barrow et al., 2017).

Athletes who are forced to retire due to injury can also be impacted long-term by their injury and subsequent retirement. One study found that career-ending injuries were associated with lower life satisfaction among athletes who had been removed from their sports for 5-10 years, while this effect was not present in those who did not retire due to injury (Kleiber et al., 1987). This effect is further compounded by college athletes' desires to play professional sports, as those who suffered a career-ending injury but had hoped to compete in their sport beyond college demonstrated the lowest life satisfaction in a study of 425 college athletes (demographic information not provided; Kleiber & Brock, 1992). Additionally, the athletes who experienced career-ending injuries but had intended to play professionally demonstrated lower self-esteem

many years later as compared to their counterparts who did not experience injury, had low inclination toward professional sport, or both ( $F = 3.92, p < .05$ ). The authors attributed formerly injured athletes' decreased self-esteem and life satisfaction to the dissonance between their plans and their ultimate realities, and thus the threat to their life narratives (Brody, 1987).

### *Athletes' Experiences of Forced Retirement Due to Deselection or Team Elimination*

Although many athletes' experiences of early, unanticipated termination of their sporting careers are due to injury (Ogilvie & Howe, 1986), on occasion it also occurs as a result of being cut from a team or the elimination of an entire team (i.e., system-induced). Coakley (1983) pointed out an existing paradox in the information regarding retirement from sport. Specifically, some literature emphasizes the exploitation, threats to well-being, and general challenges that come with being an athlete and therefore it seems that retirement would be a welcome experience (Alfermann & Stambulova, 2007). Yet, retirement from sport is often framed as a negative event associated with trauma, identity crisis, and other undesirable life changes (Coakley, 1983). These experiences are understandable as, even if retirement comes with a decrease in the general challenges of being an athlete, oftentimes sport is heavily embedded in an athlete's identity (Brewer et al., 1993). The extent to which someone identifies as an athlete has been found to be associated with longer adjustment periods (emotionally and socially; Grove et al., 1997) and psychological difficulties (Webb et al., 1998) upon retirement. Another important consideration when it comes to understanding each individual's experience is the cause of retirement: unforeseen, involuntary release from sport participation presents a different experience than the planned, voluntary termination of one's sporting career. Specifically, voluntary withdrawal from sport has been correlated with an easier adaptation to life after sport among high performance athletes (Alfermann, 2000; Alfermann et al., 2004; Taylor & Ogilvie,

2001), while involuntary release has been associated with clinical levels of psychological distress (Blakelock et al., 2016) and mental health issues (Lynch, 2006).

Athletes' reported experiences of being involuntarily released from sport have been primarily negative, though these vary and can also be impacted by external factors such as social support. Grief responses have often been reported by athletes whose teams have been eliminated or who have been individually cut from their teams (Blinde & Stratta, 1992; Fortunato & Marchant, 1999). Blinde and Stratta (1992) conducted a unique study in which they interviewed 13 athletes whose sports teams (i.e., women's field hockey and men's gymnastics) were suddenly eliminated by a university athletic department, and seven athletes who had been cut from their collegiate teams. Though the researchers did not originally integrate the Kubler-Ross (1969) stages of grief framework into the study, a majority of the athletes independently equated their unexpected retirement experiences to death-related experiences. Upon further analysis, the athletes' experiences appeared to parallel the five stages of the framework: (a) shock and denial, (b) anger, (c) bargaining, (d) depression, and (e) acceptance.

The first stage of grief was often brief and resulted in different responses depending upon the cause of sport exit: those who had been cut from their teams frequently isolated themselves from others, while those whose teams had been cut relied on one another for support. Secondly, anger was a very common response among the athletes as they began to feel betrayed by those who made the ultimate decision that led to termination of their careers (e.g., coach, athletic director). However, their anger often turned toward the sport system as many of the athletes realized that their forced retirement was not caused solely by any one individual. Athletes commonly reported that the anger started out very intense, and that they carried out behaviors to deal with it (e.g., drinking, running), but that the anger ultimately subsided over time. Ten of the

thirteen athletes also exhibited bargaining-like behaviors (third stage) as they attempted to reverse the administration's decision to eliminate sports programs through meetings, presentations, and petitions. The athletes who were individually cut from their teams, however, generally did not attempt to bargain with the coaches who had cut them. Those whose teams were eliminated often did attempt to bargain with their universities, but eventually felt hopeless as they realized how powerless they were within the greater collegiate sport system; this hopelessness often led them to feel depressed, the fourth and generally longest stage of grief that the athletes reportedly experienced. Athletes also reported experiencing depression as a result of feeling inferior or embarrassed (those who were cut from the team), sad about loss of camaraderie with teammates, and the sense that non-athletes in their lives did not understand what they were going through. These feelings of depression appeared to negatively impact many of the athletes academically, socially, physically, and psychologically, and many demonstrated coping behaviors in response. Lastly, interviews conducted nine months after the initial interviews revealed that many of the athletes still had not accepted their exit from sport but were able to cope with it more effectively as they joked and reminisced. The prevalence of grief responses exhibited by these athletes demonstrates the hardship that can accompany forced retirement from sport.

While not directly framed within the concept of grief, many athletes' responses to unforeseen retirement due to external circumstances seem to align with components of this framework. For instance, athletes' initial reactions to the termination of their university sports program included a "shared shock," as the termination was "neither expected nor welcomed" (Zaichkowsky et al., 2000, p. 199). Additionally, Australian rules football players who were forced to retire due to injury or deselection displayed denial as they made failed attempts to

return to play (Fortunato & Marchant, 1999). The second stage of grief, anger, seems to appear largely through athletes' feelings toward the clubs and administrations that had cut them or that terminated their programs (Fortunato & Marchant, 1999; McKenna & Thomas, 2007; Zaichkowsky et al., 2000). Elite collegiate football players from the terminated Boston University team expressed that they exhibited anger toward their friends and family as well (Zaichkowsky et al., 2000). In alignment with the fourth stage of grief, depression, athletes have reported a sense of loss—lost athletic dreams they would no longer be able to pursue, lost playing status—and disappointment as they would no longer have the opportunity to realize the sport-related expectations they had for themselves (Butt & Molnar, 2009; Zaichkowsky et al., 2000).

#### *Athletes' Perceptions of Impact of Olympic Boycott on Lives and Athletic Careers*

Olympic boycotts are similar to the COVID-19 pandemic in that athletes whose countries have boycotted the Olympics are unable to take part in competitions that they had originally planned to engage in, for a reason that is beyond their control. While there have been various Olympic boycotts (e.g., United States-led boycott of the 1980 Moscow Olympics, Soviet Union boycott of the 1984 Los Angeles Olympics, North Korea-led boycott of the 1988 Seoul Olympics), there is limited research on the impact that these boycotts have had on the athletes of the boycotting countries who did not compete as a result. Crossman and Lappage (1982) interviewed forty-eight athletes (16 female, 32 male) from the 1980 Canadian Olympic team about the impact of Canada's boycott of the Olympic Games on their lives and athletic careers. The athletes, who were representative of 15 Olympic sports, initially found out about the boycott from either the media (63%), a coach (23%), a significant other (6%), teammates (4%), or a head official from the sports federation (4%). Many did not suspect the boycott to happen at all

(23%), while others believed that it might happen based on international politics over the months leading up to the boycott. Athletes' reported reactions to the boycott were overwhelmingly negative; the most common words used to describe their initial reactions were disappointment, disbelief, frustration, anger, and devastation. As they reflected in the following days, they described being angry, depressed, in denial, and more upset than they had been initially. Many of the athletes coped with the situation by setting new goals for other competitions, and many were able to compete in an alternate Olympics. While some worked to accept the situation and move forward, others quit their sport as a result of the boycott. Further, the Olympic athletes were divided in their views on the impact that the boycott had on their training and performance: some felt that their training fell off as a result, others felt that their training did not change. Some athletes described that their performance improved either because more high-profile athletes did not compete in the alternate Olympics or because they felt driven by their negative emotions (e.g., frustration) surrounding the situation.

The interviews were conducted 10 years after the boycott took place; therefore, the athletes were also able to speak to the long-term impact that they believed the boycott had on their careers and lives. Although most athletes felt that the boycott did not impact their athletic careers long-term, 23 percent of the athletes believed it shortened their careers (i.e., made them realize it was time to retire) and another 23 percent believed it extended their careers (i.e., continued to train for future competitions rather than retire). Half of the athletes felt that the boycott had a negative impact on their income due to lost endorsement deals, delayed retirement (and subsequent delays in employment), or lost opportunities for professional contracts without Olympic exposure. Positive results of the boycott, from the athletes' perspectives, included character building, realizing that sports were not everything, learning to cope with



disappointment, and preparing for the “realities of life” (Crossman & Lappage, 1992, p. 366).

The negative effects that athletes described included long-term cynicism toward sport, heightened awareness of the relationship between politics and sport, and taking time away from school in order to train for Olympics which they ultimately did not get the opportunity to compete in.

### **Changes to Competitive Sport in Response to COVID-19**

The onset of the COVID-19 crisis led organizations and institutions to make major changes to reduce the spread of the virus. The following review focuses primarily on the impact of COVID-19 on the Big Four sports leagues in the United States, the Olympic Games, and collegiate sports in the United States. It also outlines their responses, and how these responses changed over the course of the pandemic.

#### ***Professional Sports***

The response of professional sports organizations that were in-season at the time of COVID-19 generally involved terminating competition and developing contingency plans for seasons that may be impacted later in 2020 and into 2021. Over the course of the pandemic, these organizations have adjusted while still making efforts to hold competitions. The organizations implemented health and safety protocols that commonly included athletes quarantining after travel, being frequently tested for the virus, playing modified schedules, and sometimes playing in modified spaces.

**National Basketball Association (NBA) and Women’s National Basketball Association (WNBA).** The same day that COVID-19 was declared a global emergency, the National Basketball Association (NBA) reported that it would be “suspending game play following the conclusion of tonight’s schedule of games until further notice,” citing that a Utah

Jazz player had preliminary tested positive for the virus (National Basketball Association, 2020). On June 26, after a three and a half month hiatus, the NBA and National Basketball Players Association “finalized a comprehensive plan for a July 30 restart to the 2019-2020 season, which [included] stringent health and safety protocols [and a] single-site campus at Walt Disney World Resort in Florida” (National Basketball Association, 2020). The rest of the season, which was played in “the bubble” with no live audience, consisted of seeding games, playoffs, and finals that only included the 22 teams (out of 30 total) that were still in playoff contention when competition paused on March 11, 2020. The Women’s National Basketball Association (WNBA) season was set to begin in mid-May but was also postponed in order to adhere to social distancing guidelines (Women’s National Basketball Association, 2020). The WNBA started its season on July 25, 2020 and like the NBA they played on a condensed schedule (22 games) in their own quarantine bubble (coined the “wubble”) in Bradenton, Florida (Tennery, 2020).

The 2020-2021 season for the NBA began on December 5, 2020, and games were once again played in team’s local arenas as usual for all teams based in the United States (Todisco, 2020). The Toronto Raptors were the only team that did not play in their home arena; due to COVID-related border restrictions between the United States and Canada, the team played their home games in Tampa, Florida (Reynolds, 2021). Players and teams returned to traveling as usual, living at home and staying in hotels when on the road. However, various health and safety protocols were put in place to deal with the ongoing COVID-19 pandemic. The main protocols were that (a) independent cases of COVID-19 would not lead to a suspension or cancellation of the season, (b) any players who tested positive would have to wait at least 10 days before working out, (c) teams could only travel 45 people total and only 17 athletes, (d) teams and

facilities would be monitored and inspected to be sure they were following COVID-19 guidelines, and (e) players or teams found to be in violation of protocol could face penalties (e.g., warnings, loss of pay, suspension; Aschburner, 2020). Each team developed its own policy regarding the number of fans allowed in the arena during home games based on information from league, local, state, and federal health officials; these policies ranged from no fans allowed, to 25 percent capacity in the arena (Traub, 2021b).

The 2021 WNBA season began on May 14, 2021, with teams also playing in local markets again. However, the league aimed to reduce the amount that teams traveled; one way that they did this was by having some teams play a series of games back-to-back in one place (Voepel, 2021). Teams will play a slightly condensed 32-game season, rather than the usual 36 games. There was also a testing protocol for the players, and spectator attendance at games was determined by each team in conjunction with the league and local, state, and federal health officials (Feinberg, 2021).

**Major League Baseball (MLB).** Major League Baseball (MLB) also suspended all operations, including the remaining Spring Training games, and reported that it would delay the start of the 2020 regular season (Major League Baseball, 2020). The delayed start took place on July 23, with a shortened schedule of 60 games per team (regularly 162 games) and “an increased emphasis on geographic proximity” as teams played only against teams within their division and those from the corresponding geographical division in the opposing league (Simon, 2020). COVID-19 outbreaks amongst MLB teams led the organization to postpone over 40 games during the first half of the condensed season (July 23 through September 12; Axisa & Anderson, 2020). At the end of the condensed season, the MLB expanded playoffs to 16 teams rather than the usual 10 teams—a change that would lead to more games, more television

revenue for team owners, and more ticket sales (Shaikin, 2020). The Division Series, League Championship Series, and World Series were all played at neutral sites rather than the participating teams' home fields to keep the teams in a bit of a protective bubble as part of COVID-19 safety precautions (Castrovince, 2020). Players and staff were quarantined with each other and their families during playoffs, and naturally there was a reduction in travel as a result of playing at one site for the entire series. The only "spectators" allowed during the condensed regular season were cardboard cutouts (Clair, 2020). During the postseason, approximately 11,500 fans (living, breathing humans) were allowed at each game of the final round of playoffs; tickets were sold in pods of four, and pods were spaced at least six feet apart. Finally, the Minor League Baseball (MiLB) season was completely suspended in 2020 for the first time in 120 years, taking a big toll on players' training, lifestyles, and likely on some players' incomes (Anderson, 2020).

In 2021, the MLB has returned to a 162-game schedule regular season (April through October) in which teams were no longer limited to playing within their regions (Major League Baseball, 2021). While teams based in the United States returned to playing in their home stadiums, the Toronto Blue Jays played their home games in Dunedin, Florida due to COVID-related border restrictions between the United States and Canada (Axisa, 2021). Playoffs were also expected to return to their normal 10-team format. Fans were allowed to attend regular season games once again, with most stadiums allowing a maximum of 20-33 percent of their capacity early in the season (though some teams started at a higher capacity, such as the Atlanta Braves and Houston Astros who were at 100 percent capacity on Opening Day) and planning to move toward 100 percent capacity later in the summer (Traub, 2021a). Some teams, such as the New York Mets and New York Yankees, have provided vaccines for fans at their home

games. Lastly, MiLB returned to play on May 4, 2021, but this time as the Professional Development League (PDL). The 2020 hiatus from MiLB play allowed time for major changes to be made at the PDL level; these changes included moving Triple-A teams closer to their Major League affiliates, increasing pay for PDL players (38-72 percent pay increase), less travel during the season, and improved facilities and working conditions (Mayo, 2021).

**National Hockey League (NHL).** The National Hockey League (NHL) paused the season on March 12, 2020 with 189 games left to play, at a pivotal point as they neared playoffs and each team had 11 to 13 games left to play (Roque, 2020). On May 26, the organization announced its plan to return to play: 24 qualifying teams would compete for the Stanley Cup, beginning with 16 teams playing in qualifiers (starting on August 1; Gulitti, 2020). The qualifiers were held in two hub cities—Toronto and Edmonton—and the conference finals and Stanley Cup Finals were held in Edmonton as well. These focused playing sites helped to limit travel and therefore reduced players and personnel's risk of contracting or spreading the COVID virus. This approach proved to be successful as the NHL announced that no competing athletes had tested positive for COVID-19 after administering 33,174 COVID tests (Gregory, 2020). Similar to other professional sports, all games were played with no fans in attendance (Pickens, 2020).

The 2020-2021 NHL season was supposed to begin in October 2020, but due to the postponement of the previous season, it began in January 2021. Each team was scheduled to play a 56-game regular season schedule (usually each team plays 82 games) and the divisions were temporarily realigned due to COVID-19 travel restrictions between the United States and Canada (McCarriston, 2021). The seven teams located in Canada were all placed into one division, and the teams in the United States were placed into three divisions. Teams once again

were playing in their home arenas rather than in precautionary “bubbles,” though there were various preventative regulations put in place that teams and players were expected to follow throughout the season. Some of the key regulations included that teams must disclose any players who test positive, COVID-19 positive players must follow local isolation guidelines, coaches must wear masks on the bench, and each player gets their own hotel room on the road (McCarriston, 2021). However, in May 2021 the NHL relaxed these restrictions for players, staff, and teams who were fully vaccinated (Gulitti, 2021). Individuals are considered fully vaccinated two weeks after receiving their final vaccination, and teams are considered fully vaccinated when 85 percent of their traveling players and staff are vaccinated. At the beginning of the 2021 season, only three teams were selling tickets to games; however, the number of teams allowing fan attendance at limited capacity increased over the course of the season (White, 2021).

**National Football League (NFL).** The National Football League (NFL) was not in competition at the onset of the COVID-19 pandemic but needed to adjust as it neared the 2020-2021 season. After a virtual off-season and draft, players prepared to return to a modified training camp in late July 2020. Training camp consisted of one week of acclimatization consisting only of weight training and conditioning, approximately one week of non-contact practice and a limit of 3.5 hours on the field per day, and approximately three weeks during which they were able to participate in 14 padded practices before the season began (Battista, 2020). Players were frequently tested and limited in their activities off the field and outside of the training facility. Players also had the option to opt out of the season and receive a stipend: \$350,000 for those at greater risk of COVID-19, \$150,000 for those without a greater-than-normal risk. Various players around the league took this option (ESPN, 2020).

No pre-season games were scheduled, and although various social-distancing measures were put in place to protect players and personnel over the course of the season, the schedule did not change and still required travel (rather than playing in a “bubble” or “hub cities” as other organizations had opted for; Graziano & Seifert, 2020). There were also no major changes to the NFL’s season, which began September 10, 2020, and each team had to submit an infectious disease emergency response plan to the NFL Players Association (NFLPA) for approval (Shook, 2020). The NFL experienced a few major COVID-19 outbreaks, such as the Tennessee Titans having 24 people test positive and the Baltimore Ravens putting 23 players on the COVID-19 list within a short period of time (Walker, 2020). Due to these outbreaks and others around the league, the NFL put various restrictions in place and fined teams and players who went against these restrictions. Several games were moved to other locations or postponed as a result of positive COVID tests (Selbe, 2020). Finally, it was left to each team to determine whether or not spectators could attend games in-person, and plans ranged from not allowing fans to allowing fans while implementing social distancing measures and reduced capacity in stadiums (The Athletic, 2020). Twenty-five thousand spectators (and 30,000 cardboard cutouts) attended Super Bowl LV, putting Raymond James Stadium at just under 40 percent capacity (DeArdo, 2021). The 2021 NFL season is expected to begin in September as usual, and NFL Commissioner Roger Goodell has said he expects stadiums to be at full capacity this season (Shook, 2021).

**Other Professional Sports.** Additionally, 11 Professional Golfers’ Association (PGA) Tour events scheduled through the summer of 2020 were cancelled, while various tournaments scheduled for June through September were rescheduled for alternate dates (Professional Golfers’ Association Tour, 2020). The PGA returned to play beginning with the Charles Schwab

Challenge on June 11, 2020, while the U.S. Open and The Masters were rescheduled for the fall (Kelly, 2020). Tournaments were held with no spectators until November 2020, when limited spectators were allowed to attend the Houston Open (Piastrowski, 2020). While this was a turning point in regard to re-admitting spectators to PGA tournaments, The Masters (held one week later) was still played without fans in attendance (Porath, 2020). The Ladies Professional Golfers' Association (LPGA) was scheduled to return approximately a month after the PGA's return to play, with the first tournament scheduled for mid-July 2020 (Levins, 2020). Fourteen LPGA events were canceled, and 12 events were rescheduled (Herrington, 2020). Once play resumed, tournaments were held with no spectators (Porter, 2020).

The Association of Tennis Professionals (ATP), Women's Tennis Federation (WTF), and International Tennis Federation (ITF) also suspended tournaments through July (Reuters, 2020). The ATP Tour returned on August 22 (Association of Tennis Professionals, 2020), the WTA resumed tournament play on August 10 (Women's Tennis Association, 2020) yet a majority of the competitions on the ITF tour remained cancelled (International Tennis Federation, 2020).

**Olympic Games.** The COVID-19 pandemic also dealt a major blow to international sport, as the 2020 Summer Olympic Games set to take place in Tokyo were postponed until July 2021 (International Olympic Committee, 2020). Going into the summer of 2021, Japan was experiencing a surge in COVID-19 cases and by mid-May only 2 percent of the population had been vaccinated (Porterfield, 2021). This prompted the Japanese government to declare a state of emergency throughout the country (including Tokyo) through the end of May. According to polls, 60 to 80 percent of residents in Japan believe the Olympics should not be held in Tokyo



this year as scheduled, and more than 350,000 people have signed a petition calling for the cancellation of the Games (Schad, 2021).

Despite the pushback from locals, the International Olympic Committee (IOC) has made it clear that they intend to hold the Olympics in Tokyo as planned. They have put various safety measures in place to protect against the spread of COVID-19: (a) athletes must report their temperatures for 14 days prior to arriving in Japan, (b) athletes must submit an “activity plan” for their first 14 days in Japan detailing what they will be doing and how they will be traveling around, (c) athletes must be tested for COVID-19 at least every four days while in Tokyo, (d) masks will be required most of the time outside of competition, and (e) social distancing will be enforced (Smith, 2021). Athletes staying in the Olympic Village have been asked to arrive no sooner than five days prior to their first event and leave no later than two days after their final event. This means that the Opening and Closing Ceremonies will be considerably different, with far fewer athletes participating. There will be no overseas spectators allowed at the Olympic Games, though a limited number of Japanese fans will be allowed to attend.

The postponement of the Olympic Games also had some impact on qualification for the Games. Those who had already qualified for the 2020 Olympic Games did not lose their spots. However, some sports were in the midst of their qualifying periods when the pandemic hit and put activities on hold. Qualification procedures were altered depending on the sport, with many pushing the end of the qualification window back by one year and moving qualifying events (Smith, 2021). This allowed some athletes to qualify who previously may not have had the opportunity, but also may have changed the trajectory for some who would have qualified if the Games had gone on as originally planned in 2020.

**Division I Collegiate Athletics.** The NCAA's initial response to COVID-19 took place in early March 2020 with the formation of the COVID-19 Advisory Panel. This panel—consisting of NCAA chief medical officer Dr. Brian Hainline, seven experts (medical, public health, security), and four former or current student-athletes—was developed to provide the association's members with the most up-to-date information, address major questions, and provide recommendations to the NCAA Board of Governors. The following timeline represents statements and actions regarding COVID-19 within collegiate athletics during the first few months of the pandemic, according to the NCAA website and a timeline from ESPN (Hale, 2021). The dates within the following timeline reflect how quickly decisions and resulting changes took place within the NCAA in March 2020, as the shutdown of college sports began:

- March 6, 2020: The COVID-19 Advisory Panel reported that they did not recommend cancellation of or public spacing at athletic events.
- March 10, 2020: The NCAA reported that member schools and conferences could “make their own decisions” regarding competitions in the face of global public health concerns.
- March 11, 2020: NCAA determined that upcoming championships, including men's and women's basketball tournaments, would be carried out with only essential staff and limited family attendance (per recommendation of COVID-19 Advisory Panel, who released a similar statement earlier on this day).
- March 12, 2020: NCAA cancelled 2020 Division I men's and women's basketball tournaments, as well as all other winter and spring NCAA championships.
- March 19, 2020: NCAA member schools launched #UnitedAsOne campaign online to promote unity and support between athletic programs (led by individuals within athletic departments' digital and social media factions).

- March 26, 2020: NCAA Board of Governors unanimously voted to distribute \$225 million to Division I member schools in June 2020 “to specifically focus on supporting college athletes.” Originally, the NCAA had budgeted to distribute approximately \$600 million to Division I schools, beginning in April 2020.

***Changes to Practice and Competition Schedules.*** The cancellation of remaining 2020 spring and winter championships on March 12 signified that all sports were considered out-of-season for the remainder of the 2019-2020 academic year. Therefore, Division I coaches could only require student-athletes to participate in up to eight hours of “virtual nonphysical countable athletically related activities” such as film review and team meetings (National Collegiate Athletic Association, 2020a). Per NCAA Division I Bylaw 17.02.1 (National Collegiate Athletic Association, 2019, p. 250), an institutional staff member certified in first aid, cardiopulmonary resuscitation, and automated external defibrillation (typically coach or athletic trainer) had to be present for any physical countable athletics-related activity. Thus, during COVID-19 isolation, student-athletes were not able to carry out this form of activity; any physical activity had to be voluntary. It was also still required that student-athletes were given one full day off per week. The cancelation of sport-related activities aligned with the social distancing measures taken by academic institutions, all of which transitioned from live classes to distance learning and terminated all in-person gatherings for the remainder of the 2019–2020 school year.

***Return to In-Person Training.*** On May 20, 2020, the NCAA Division I Council voted to allow Division I football and basketball athletes to participate in voluntary on-campus athletic activities beginning on June 1. Two days later, they voted to allow all Division I athletes to participate in voluntary on-campus athletic activities beginning on June 1. Each school was given discretion to determine how they would manage the resocialization process (e.g., access to

on-campus facilities, group size, measures taken to limit spread of the virus), taking into consideration state and local regulations. However, the NCAA published (and continued to update) recommendations and guidelines for member schools regarding the resocialization of collegiate sport consisting of a comprehensive list of considerations for institutions, athletic departments, coaches, and student-athletes (National Collegiate Athletic Association, n.d.). On June 1, players and coaches could return to campuses voluntarily. Most schools implemented protocols to limit spread of COVID-19, such as isolation and social distancing for athletes upon return to campus. On June 17, the NCAA Division I Council approved a six-week practice plan for Division I football teams to begin in July, which transitioned teams from voluntary workouts back to the typical mandatory pre-season camp/practice schedules. They also extended a waiver allowing eight hours of required virtual nonphysical activities per week through the end of July for all sports except basketball and football.

*Changes to Fall Sports.* As the COVID-19 pandemic continued to impact the country and the world through the summer of 2020, competition scheduled for Division I fall sports began to be impacted as well: conferences either reduced the number of competitions that would take place (Kilgore, 2020) or eliminated competition entirely. For instance, in July 2020 the Ivy League determined that there would be no intercollegiate competitions for the entire fall semester to align with campus-wide safety policies (The Ivy League, 2020). At this time, the NCAA had not made any changes to Division I fall championships as they reported that they would keep the formatting, schedules, and locations of all championships as originally planned. However, as the fall approached and the pandemic continued, the fate of fall sports had yet to be decided by the NCAA and its member conferences. An important consideration was the new medical discovery that some individuals who contracted the COVID-19 virus also developed

myocarditis (Kim et al., 2020; Zeng et al., 2020), an inflammation of the heart muscle that can have severe consequences for athletes (Wallace, 2020). Myocarditis requires an extended recovery time and a slow return to high-intensity physical activity; as a rapid return to physical activity can lead to greater cardiac damage. In fact, it is one of the leading causes of sudden cardiac death among athletes (Maron et al., 2009), and as of August 2020 had been found in five Division I athletes who had contracted COVID-19 (Lavigne & Schlabach, 2020).

As a result of mounting concerns, in August the NCAA cancelled fall championships—although, member schools who chose to allow athletes to compete could still do so (NCAA, 2020). As the pandemic continued later into the year, the NCAA took steps to allow for modified versions of college sports to take place. On September 16, the NCAA approved the rescheduling of the Football Championship Subdivision (FCS) championship to the spring of 2021 (April 18-May 15) with 16 teams rather than the usual 24 teams. On November 4, the NCAA Division I Council approved the proposal to move 2020 fall championships to the spring of 2021 (Johnson, 2020). This change was made for cross country (men's and women's), field hockey, soccer (men's and women's), women's volleyball, and men's water polo. The NCAA also reduced the minimum number of contests that teams were required to participate in over the course of the season in order to be deemed eligible for championships. Finals brackets were reduced to 75% of their normal capacities for team sports (i.e., the number of teams able to participate in finals). In regard to practice and daily athletic activities, Division I athletes could only be required to participate in “countable athletic related activities” for eight hours per week during the off-season and twenty hours per week in season. Therefore, athletes' schedules were altered considerably as their off seasons became their seasons (and vice versa).

Football Bowl Subdivision (FBS) teams generate a reported 48% to 64% of the income for Power Five athletic departments each year (Dochterman, 2020), so conference decisions of whether to hold a football season in the midst of the pandemic had major financial implications. On August 11, 2020, the Pac-12 and Big Ten conferences announced that they would be postponing all fall sports for the rest of the calendar year (Big Ten, 2020; Pac-12, 2020). The following day, the other three members of the Power Five—the Atlantic Coast Conference (ACC), Big 12, and Southeastern Conference (SEC)—confirmed that they planned to move forward with their scheduled football competitions (although, some other sports were moved to a delayed start; Bratton, 2020; Cobb et al., 2020). On August 13, NCAA medical advisors met with the media and voiced concerns over the possibility of carrying out the 2020-2021 football season; one medical doctor compared the situation to the sinking of the Titanic, stating, “I feel like we have hit the iceberg, and we are making decisions about when we should have the band play” (Ryan, 2020). However, the Big Ten conference ultimately announced a shortened, Conference-only football season in September, and the Pac-12 followed suit in October (Big 10, 2020; Pac-12 Conference, 2020). Conferences held shortened seasons as a result of starting later in the fall, and teams played fewer games as most were only playing teams within their respective conferences to reduce travel and contact between athletes. Over the course of the 2020 college football season, 139 games were canceled or postponed due to COVID-19 cases and outbreaks (Cobb et al., 2020). Despite 16 canceled bowl games and 22 teams opting out, the College Football Playoff tournament still took place, culminating in the national championship game on January 11 (Patterson, 2020).

***Extension of Athletic Eligibility.*** NCAA Divisions I, II, and III approved extension of eligibility waivers for student-athletes whose spring seasons were canceled due to COVID-19,

thus granting them one more year of eligibility to compete. They also ended up extending this additional year of eligibility to athletes who were supposed to compete in fall 2020 and winter 2020-2021. Although some of these fall and winter sport athletes did end up having competition seasons in 2020-2021, the seasons were often considerably altered or shortened as a result of pandemic-related safety measures (e.g., cancelled games, conference-only schedules). While the decision to extend eligibility appeared to benefit those athletes who may have wanted to compete for one more year, there were some caveats. For instance, though schools had the option to grant athletes the additional year of eligibility, they are not required to provide the same amount of financial aid as the athlete had been receiving previously; due to the major reduction in NCAA revenue distribution to its member schools in 2020, reductions in financial aid appear likely. Another limitation is that the NCAA gave Division I schools and conferences the ability to make their own decisions on whether to extend athletes' eligibility. Within the first month of spring sports being canceled, the Ivy League and University of Wisconsin had already reported that they would not approve this option for their spring sport athletes (West, 2020; Pickman, 2020). It is also of value to note that per NCAA decision, the eligibility extension only applied to spring sport athletes despite cancellation of all winter sport championships in 2020 (for a list of spring and winter sports, see National Collegiate Athletic Association, 2020a, p. 5). Based on the NCAA's survey of student-athletes from all three divisions, the decision to cancel championships was perceived as fair by more spring sport athletes (61%) than winter sport athletes (43%; National Collegiate Athletic Association, 2020b). Additionally, 37% of seniors reported a sense of loss as compared to 24% of underclassmen, which may be due to many of them losing the opportunity to compete in their final seasons of eligibility. Approximately 85% of Division I underclassmen eligible to return and who were not graduating reported that it was

“very likely” they would return to their current teams, while this was only reported by approximately 50% of eligible seniors.

***Changes to Recruiting.*** The cancellation of remaining athletic seasons is not the only way in which college student-athletes' sport experiences may be impacted as a result of COVID-19. NCAA Divisions I and II banned in-person recruiting for coaches and suspended any official or unofficial campus visits by prospective student-athletes through at least May 31, 2020. During this dead period, coaches were still able to contact prospective student-athletes via writing, phone, or video meeting. Further, the Division I Council removed financial aid limitations so schools would have the option to provide financial aid for athletes with extended eligibility while not limiting the funds intended for incoming athletes. Because these changes could potentially impact roster sizes, the Division I Council exempted baseball players with extended eligibility from counting against the varsity squad limit of 35 student-athletes (National Collegiate Athletic Association, 2020a, 2020d). Baseball is the only spring sport with a roster limit. Lastly, the Division I Council stated that institutions could financially support student-athletes' health and safety needs, such as off-campus room and board if necessary (National Collegiate Athletic Association, 2020a, pp. 22–23). Though the NCAA placed a major focus on eligibility relief in response to COVID-19, student-athlete leaders placed the well-being of their peers at the forefront. Prior to the NCAA Division I Council's vote on extending eligibility, 60 Student-Athlete Advisory Committee (SAAC) representatives from the Power 5 conferences released a letter detailing their recommendations to the council; before all else, they highlighted that “student-athletes desperately need immediate support for housing and food” and suggested the use of the NCAA Student Assistance Fund intended to help athletes with challenges outside of sport (Bartholomew, 2020). Along with the major health, economic, and safety concerns



resulting from COVID-19, the aforementioned changes to the college sport scene left college student-athletes facing radical lifestyle changes as well.

### **Impact of the COVID-19 Pandemic on Athletes**

The COVID-19 pandemic generally led to logistical changes in many athletes' lives, which led to changes in their mental health, well-being, and their need to implement coping strategies. For instance, at the beginning of the pandemic, a survey of Division I NCAA athletes revealed that 54% of the athletes surveyed had moved out of their current housing because of pandemic-related changes (Petrie et al., 2020). In a survey given by the NCAA to assess student athletes' situations and well-being at the start of the pandemic, most respondents reported that they were living away from campus with family members and were unable to train due to local regulations and lack of access to facilities and equipment (National Collegiate Athletic Association, 2020b). Limited access to enough food (and healthy food options), unstable housing situations, and lack of knowledge about how to access medical and mental health support locally appeared to plague some student-athletes during this time as well.

### ***Impact of Pandemic on Sport Training and Physical Activity***

The pandemic appeared to cause changes in many athletes' training regimes and their general engagement in physical activity. In their survey administered early in the pandemic, Petrie and colleagues (2020) found that 89% of the NCAA Division I athletes reportedly engaged in regular vigorous activity, often for more than an hour a day. While the athletes were reportedly engaging in physical activity, they also reported many barriers to training. Further, many surveys of athletes over the course of the pandemic reflected that there was a reduction in frequency and time spent training. For instance, in a survey of high school (22%) and collegiate (78%) athletes from various countries, only 2.1% respondents reported being able to maintain

their training regime (Izzicupo et al., 2021). In a sample consisting mostly of collegiate athletes in the United States (88% of respondents), most reported lower training frequency throughout the week and reduced time spent training. Seventy-nine percent of the athletes reported a training frequency of 5-6 days per week prior to COVID-19, with that number dropping to 46% during the pandemic as many reported training fewer days per week (Jagim et al., 2020). There was also a reduction in the amount of time that the athletes spent training; athletes spent less time engaging in strength and conditioning, mobility/flexibility, and sport-specific training, though the biggest drop was in the time spent in sport-specific training (6.5 fewer hours than prior to the pandemic). Sixty-six percent of these athletes reported lower training satisfaction since the pandemic began. In a sample of elite female athletes representative of various countries and sports, 76% reported a decrease in training with many reporting changes to the nature of their training as well (Bowes et al., 2020). The pandemic-related changes to athletes' training appeared to impact athletes differently depending on their personalities and appraisals; among Olympic and Paralympic athletes surveyed during the pandemic, neuroticism and psychological inflexibility were positively associated with the belief that the pandemic had greatly impacted the athletes' training routines (Clemente-Suárez et al., 2020).

**Access to Facilities, Equipment, and Coaches.** The decrease in training and physical activity that impacted many athletes during the pandemic can be partially attributed to changes in their access to resources. First, due to physical distancing measures that were taken to reduce the spread of COVID-19, many athletes were forced to relocate away from their usual training facilities and as a result did not have the same access to coaches and support staff. Many also had limited access to equipment and training facilities, due to relocation and/or facility closures because of the pandemic. When Division I college athletes were asked about barriers to training,

local regulations, facility closures, and lack of access to necessary resources were by far the greatest barriers (Petrie et al., 2020). Ninety-four percent of elite female athletes from different countries reported that their access to equipment had been impacted by COVID-19, with some highlighting that their male counterparts had received more support in regard to equipment access (Bowes et al., 2020).

Beyond having limited or altered access to equipment and facilities, athletes also reported that a lack of access to their coaches (in-person or virtually) was a barrier to their training (National Collegiate Athletic Association, 2020c). While social distancing measures led many athletes to have to train on their own, many continued to receive programming and support from coaches. For instance, in a sample of student-athletes in the United States, 84% reported that they were training alone but 94% were still receiving guidance from their sport coach or strength and conditioning coach (Jagim, 2020). In May 2020, coaches from various levels of competition and different countries were surveyed about the activities that they were implementing (or not implementing) during the pandemic. Twenty-eight percent of the coaches reported that they did not implement any technical training activities with their athletes, and fifty-eight percent of the coaches reported that they did not prepare any tactical content for their athletes during the pandemic (Peña et al., 2021). According to an NCAA Division I strength and conditioning coach, “the hardest part is the ever-changing landscape and not knowing, [and] the inability to appropriately plan and periodize an athlete’s training” (T. Kolb, personal communication, August 16, 2020). Lastly, coaches preferred synchronous communication when it came to technical (28%) and physical fitness content (40%), while tactical content was conducted live a bit more often (Peña et al., 2021).

Often, it appeared that athletes were in communication with coaches during the pandemic and were satisfied with the support they were receiving. For instance, more than half of Division I athlete respondents reported that their coaches communicated with them weekly and 82% reported feeling positive about the support they were receiving from their coaches during the pandemic (National Collegiate Athletic Association, 2020b). Among a sample of high school and college athletes, 76% reported that they were receiving support from coaches during the pandemic, with individual sport athletes reporting more support from coaches than team sport athletes (Izzicupo et al., 2021). Similar trends were seen among high-level female athletes: about 74% percent reported that they were receiving “adequate support” (Bowes et al., 2020). However, while many athletes felt supported and connected to their coaches, this was not true for everyone as some felt their coaches were not providing enough support or they simply had not heard from their coaches at all since the pandemic began (Bowes et al., 2020).

**Emotional, Psychological, and Motivational Factors.** Athletes’ training regimes and levels of physical activity during the COVID-19 pandemic were also likely influenced by internal, individual factors. Difficult emotions brought on by the COVID-19 virus and pandemic seemed to limit the extent to which some athletes felt comfortable engaging in training. In a sample of Division I collegiate athletes, 45% cited fear of exposure to the virus, 20% cited stress or anxiety, and 13% cited sadness or depression as barriers that prevented them from training (Petrie et al., 2020). Some (if not all) of these emotional responses are driven by cognitive appraisals about the severity and danger of the virus—an important psychological aspect that has ultimately impacted athletes’ training.

Motivation is another factor that varies from individual to individual, insofar as what drives each person as well as how those drivers impact behavior. Some athletes reported

changes in their motivation to train for their sports, with 68% of a sample of student-athletes reporting decreased levels of training motivation since the pandemic began (although, 17% reported the same level of motivation as before; Jagim et al., 2020). Mascret (2020) surveyed nearly 700 French athletes about their achievement goals prior to and during the COVID-19 lockdown to understand (a) if they had changed because of the altered situation and (b) if they had an impact on the athletes' intentions to exercise during confinement. Goals are influenced by the motivational climate that a person experiences and can directly influence a person's intentions and behaviors, thus playing an important role in motivation. Retrospectively, the French athletes reported a greater focus on self-approach goals (striving for improvement) and less focus on self-avoidance goals (avoiding regression) related to physical activity prior to the lockdown in France (for context, during this time individuals in France were allowed to leave their homes for one hour per day for the purpose of physical exercise and had to remain within one kilometer of their homes). However, the athletes reported the opposite during the lockdown: while their goals prior to confinement were more oriented toward self-improvement, during confinement their focus shifted to avoiding regression regarding their physical activity (Mascret, 2020). Despite changes in the athletes' goal orientations during the pandemic, both types of goals—striving for improvement and avoiding regression—positively predicted intentions to exercise during the lockdown. Mascret noted that although self-avoidance goals are sometimes viewed as maladaptive, they were likely positive predictors of exercise during the mass quarantine because “they were more functionally-congruent with the context, which was not the case before confinement” (p. 3).

### *Athletes' Initial Responses to Changes*

Upon first learning that competition and sport participation was being cancelled or paused, elite athletes commonly reported feeling confused, disappointed, and/or relieved (Oblinger-Peters & Krenn, 2020; Whitcomb-Khan et al., 2021). Feelings of confusion were typically tied to a sense of uncertainty, which is a very different experience compared to the plans, schedules, and programming that athletes are often accustomed to (Schinke et al., 2020). Athletes also experienced disappointment that they had trained and prepared for competitions that were cancelled or postponed for unknown periods of time, and some reported relief because the changes would afford them more time to train and prepare if they felt they needed it (Oblinger-Peters & Krenn, 2020). In a commentary by sport psychology consultants working with athletes who had been preparing for the 2020 Olympics in Tokyo, they reported athletes' responses both before and after the official postponement of the Olympic games (Schinke et al., 2020). As the COVID-19 pandemic began to impact athletes in various countries, the practitioners reported that changes to calendars and daily life left athletes "puzzled" and stressed: responses included decreased sleep and appetite, increased rumination and loneliness, and fear that they might lose their opportunity to compete in the Olympics altogether. Once the International Olympic Committee decided to postpone the summer games, emotional responses ranged from "...relief to questioning of whether a rescheduled event would take place" (Schinke et al., 2020, p. 270). Despite the mental strength and resilience often attributed to these elite athletes, some were shaken by questions of whether qualifications would remain valid and what to do while they waited for a final decision/re-schedule date. However, others felt that the additional time would afford them the opportunity to improve upon their weaker sport skills, and it also gave them more time to integrate sport psychology interventions to a greater degree. This aligned with suggestions that were given by kinesiology experts and

sport professionals regarding strategies for team sport athletes in isolation due to COVID-19: they suggested that athletes utilize the “window of opportunity” to effectively recover from stress, injury, and accumulated physical loads, implement injury prevention training, and integrate developmental programs for certain physical abilities (Jukic et al., 2020). However, medical professionals also highlighted the possibility that long and strenuous training sessions could lead to a temporarily compromised or reduced immune system for hours or days, thus suggesting that athletes should not train too intensely in order to reduce their chances of COVID-19 infection (Toresdahl & Asif, 2020).

### ***Impact of Pandemic on Mental Health and Well-Being***

Beyond their initial emotional reactions to pandemic-related changes, athletes often reported a decline in mental health and well-being during mass quarantine (in most countries, this lockdown began March 2020). The NCAA reported that based on the survey administered at the beginning of the pandemic, athletes reported mental health concerns at rates 1.5 to 2.5 times higher than what is typically reported by NCAA collegiate athletes (National Collegiate Athletic Association, 2020b). Specifically, at that time, Division I athletes commonly reported frequent feelings of being overwhelmed (47% of women, 29% of men), sleep difficulties (41% of women, 30% of men), and mental exhaustion (37% of women, 25% of men). Varying degrees of loneliness, sense of loss, overwhelming anxiety, hopelessness, and anger were also reported, and some reported feeling so depressed that it was difficult to function (9% of women, 7% of men). Further, 26% of Division I athletes reported subclinical levels of depression, while 21% reported clinical levels (Petrie et al., 2020). Many experienced psychological distress (69% moderate, 10% high), and less than half of respondents reported that they were satisfied with life at the time (40%). There was also a nine percent reduction in the number of athletes who

continued to receive mental health counseling after the onset of the pandemic (Petrie et al., 2020). Generally, individuals of color, those whose families were struggling economically, and those who lived alone reported the greatest mental health challenges.

Over the course of the pandemic, particularly during the period of mass quarantine when sports were shut down, athletes of various levels and nationalities reported a range of mental health experiences. A sample of competitive boxers from the United Kingdom (age:  $19.4 \pm 4.6$  years; experience:  $4.7 \pm 3.3$  years;  $n = 33$  male;  $n = 11$  female) surveyed during the pandemic reported significant changes in all mood states presented on the Brunel Mood Scale since the pandemic began (BRUMS; Lane & Terry, 2000): they demonstrated increases in anger, depression, confusion, tension, and fatigue, and a decrease in vigor (Roberts & Lane, 2021). Seventy percent of the boxers reported depressive symptoms during COVID-19, which the authors suggested is a substantial percentage in comparison to prior studies using the same model to assess depressive symptoms in a large population (25% of that population reported depressive symptoms; Lane et al., 2017; Roberts, & Lane, 2021). In a sample of Norwegian Olympic, Paralympic, elite, and semi-elite athletes ( $N = 184$ ; average age = 26.9), insomnia (38%) and depression (22%) were the mental health challenges that most plagued the athletes (more than anxiety, eating disorders, and gambling; Pensgaard et al., 2021). Pandemic-related concerns (e.g., worry about loved ones contracting the virus, financial concerns) were associated with greater anxiety, depressive symptoms, and insomnia.

In May-June 2020, 46% of elite adult Swedish athletes ( $N = 327$ ; 58% over 25 years old; 118 female, 192 male, 17 no gender reported) reported feeling slightly psychologically worse during the pandemic, and 6% reported feeling much worse (Håkansson et al., 2020). Athletes who reported symptoms of anxiety and/or depression were also more likely to report being in a



worse psychological mood as a result of COVID-19 and more likely to worry about their futures in sport. A survey of elite Romanian athletes (N = 249; average age = 21.2; 58% female, 42% male) conducted in March-April 2020 demonstrated that trait anxiety, depression, and vulnerability contributed to the increase of intensity of the negative impact of the COVID-19 pandemic, and the negative impact of the COVID-19 pandemic had a decreasing effect on quality of life (Cosma et al., 2021).

Other studies conducted during the pandemic did not demonstrate the same decline in mental health in samples of high-level athletes. Leguizamo et al. (2020) and colleagues found “relatively low,” non-pathological levels of stress, anxiety, and depressive symptoms in a sample of high-level athletes (N = 310; average age = 22.3 years, range = 18-49 years; 141 women, 169 men) as well as ideal mood profiles associated with high-level performance: low tension, depression, anger, fatigue, and high vigor. However, the findings of this study were not compared to previous time points or data from other populations pre-pandemic, so it cannot be confirmed that these athletes' reported moods are the same as they typically are. Clemente-Suarez (2020) and colleagues found that during the pandemic, Olympic (78% of sample) and Paralympic (22% of sample) athletes (N = 175; average age = 27.6; 59% female, 41% male) reported anxiety levels “in line with [the] non-pathological population” (p. 4; 2020) which they attributed to elite athletes' experiences coping with competition-related anxiety and development of greater cognitive resources. In an international study of high school and university athletes (N = 467; average age 21.6 years; 43% female, 57% male), participants were asked the extent to which they believed their student-athlete status was beneficial in helping them cope with challenges related to the pandemic (Izzicupo et al., 2021). Of the respondents, 61% perceived their student-athlete status to be useful as they perceived themselves as having greater capacity to

manage time, maintain motivation and remain disciplined as compared to non-athletes. However, 38% did not feel like they were at an advantage as athletes because they perceived themselves as not being different from other people, having demanding commitments, and having no support.

Qualitative interviews conducted with athletes during the pandemic allowed for nuanced understandings of athletes' experiences of the pandemic and the challenges they faced. Based on interviews with eight athletes (5 female, 3 male) from the United Kingdom who competed at the international or Olympic level, the authors described the period of mass quarantine as a *critical pause* based on the way that the athletes' lives came to a standstill and because the changes they were making were temporary (Whitcomb-Khan et al., 2021). The athletes' experiences reflected four distinct stages: (a) COVID-19 as a threat to the athletes' goals, (b) ongoing consequences of COVID-19 in athletes' personal and professional lives, (c) attempting to overcome the negative impact of COVID-19, and (d) reflecting on and adapting to the consequences of COVID-19. Various challenges impacted the athletes throughout these stages, including the abrupt end of sport, the uncomfortable lack of control, missing friends and teammates, pressure that they put on themselves and guilt they experienced for not training as much as they believed they should, and the uncertainty around their athletic careers (Whitcomb-Khan et al., 2021). Further, the athletes reported a sense of loss in regard to athletic conditioning, athletic identity, motivation, and routine. In another study of competitive athletes (mean age = 26.10, genders not reported), the athletes were interviewed about "the experience of COVID-19-related adversity and how they engaged their resilience" (Gupta & McCarthy, 2021). *Loss* was once again a common theme that emerged from the interviews, with the athletes describing loss of sport, support (including support in regard to sport training), and identity during the pandemic. A second

theme that emerged was *incongruence*, or dissonance between their typically structured environments and the “relatively aimless” nature of the COVID-19 mass quarantine. This incongruence was psychologically challenging for the athletes and often led to distress, ruminations, negative emotions, and loss of motivation (Gupta & McCarthy, 2021). Overall, the COVID-19 pandemic appeared to present cognitive and emotional challenges for many athletes regardless of personal characteristics or background.

**Defining Stress and Cognitive Appraisal.** Elite athletes, including collegiate athletes, have reportedly experienced undesirable stress responses as a result of COVID-19 and the impact it has had on their sport participation (Gallego et al., 2020; Schinke et al., 2020). These responses include a spectrum of challenging emotions such as loneliness, anxiety, sense of loss, hopelessness, and depression. The stress has also manifested physiologically and behaviorally, with athletes reporting an onset of exhaustion, negative changes in sleep patterns, and decreased appetite (Gallego et al., 2020; Schinke et al., 2020). Due to the prominence of stress and the role of cognitive appraisal on stress related to athletes' responses to disruption in sport, it is important to clarify what *stress* and *cognitive appraisal* mean. The term *stress* is used in a range of disciplines—physics, physiology, sociology, psychology—and though each usage has a distinct definition, they all involve the following: (a) a causal internal or external agent, (b) an evaluation of whether or not there is a threat, (c) coping processes used to deal with the stressful demands, and (d) a complex pattern of resulting effects (e.g., reaction; Lazarus, 1993). Stress is a deviation from homeostasis, or internal stability that is optimal for human functioning and is “the condition for the free and independent life” (Bernard, 1865). In the psychological sense, homeostasis involves the human tendency to strive to regain equilibrium and maintain status (Fletcher, 1942; Raup, 1925). The jarring effects of COVID-19 have forced society as a whole

out of its homeostatic state and has likely had a similar psychological effect on many members of society in one way or another.

Stress is difficult to define in psychological terms because it holds a different meaning for each person in any given scenario. Lazarus (1966) identified four types of stress that are influenced by both the person and his or her environment. *Harm* is any psychological damage that has already occurred, and *threat* is the anticipation of future harm. *Challenge*, alternatively, is the experience of facing difficult demands that one is confident they can overcome through effective use of coping resources. Lastly, *benefit* is a gain that has already taken place (Lazarus, 2000). The perception of harm or threat can lead to anxiety which can have a negative impact on functioning or performance, while the perception of challenge is typically energizing and generally associated with great performance (Goulde & Krane, 1992; Jones et al., 2009; Lox, 1992). A person's response to a stressor is mediated by their perception, or appraisal, of the stressor.

Cognitive appraisal is the process through which people are constantly evaluating the meaning, or personal significance, of a potentially stressful situation as it relates to their own well-being (D'Zurilla & Nezu, 1999; Lazarus, 1966). This is a central component of Lazarus' transactional model of stress (1984), in which appraisal is seen as the process that "actively negotiates" between environmental demands, and the goals and beliefs of the individual. In his explanation of the stress process, Lazarus divided appraisal into two categories. Primary appraisal is an assessment of how relevant the situation is to the person, and whether it aligns with his or her goals. Secondary appraisal is the evaluation of who is accountable for the situation, of the person's own ability to cope with the situation, and of their future expectancies about the situation (i.e., whether or not it will change and align with his or her goals). According

to the transactional model—and in alignment with the integrated model of response to sport injury—the appraisal process determines how people respond emotionally and behaviorally. Coping strategies can then be implemented at any point in this cyclical process. Coping can be defined as changing cognitive and behavioral efforts in order to manage demands that appear to go beyond one's capabilities or resources (Lazarus & Folkman, 1984). From this perspective, athletes' assessments of a situation—whether it be injury, forced retirement, or limitations due to the COVID-19 pandemic—have an impact on the type of stress that they experience, and the extent to which they experience it relative to that situation.

**Gender.** Some studies of athletes' mental health and well-being during COVID-19 have explored differences between genders, and many have identified a greater negative impact on female athletes compared to male athletes (Bowes et al., 2020; di Fronso et al., 2020; Håkansson et al., 2020; Kaçoğlu et al., 2021; Pons et al., 2020; Ruffault et al., 2020). In a sample of Italian athletes of various levels, women reported higher perceived stress and dysfunctional psychobiosocial states as compared to men, as well as lower functional psychobiosocial states (di Fronso et al., 2020). Among elite Swedish athletes, women reported feeling worse psychologically during the pandemic (Håkansson et al., 2020). In a survey of Turkish student-athletes (mostly collegiate), fear of the COVID-19 virus was higher among women (Kaçoğlu et al., 2021). At the beginning of quarantine, French people who participated in competitive sport reported different levels of anxiety and motivation; female participants reported higher levels of anxiety and lower levels of perceived control than male participants (Ruffault et al., 2020). In a survey of adolescent Spanish athletes (N = 544; average age = 15.9; 48.5% male) athletes were divided into clusters based on how they were impacted by the pandemic (determined by perceived negative impact of COVID-19 on life spheres, and mental

health issues; Pons et al., 2020). Upon dividing the athletes into clusters based on how impacted they were by COVID, women made up 72% of the athletes in the high impact cluster (and smaller percentages of the medium and low impact clusters). Bowes, Lomax, and Piasecki (2020) surveyed elite female athletes from various countries and sports (ages 18-34) about their experiences during the COVID-19 lockdown and how they felt they compared to their male counterparts. The women felt that they had been impacted more so than male athletes in terms of access to training facilities and resources while in confinement. Pons and colleagues (2020) note that this finding, as well as the findings that women were financially impacted and resumed sport activity later than men, likely contributed to the gender differences found in regard to the impact of COVID-19 on athletes' lives.

**Level of Sport Competition, Ability, and Experience.** Individuals' levels of sport competition, ability, and/or experience also appear to be connected to their mental health and well-being during COVID-19. Most findings regarding mental health and psychological well-being during the pandemic demonstrated that those competing at higher levels and who had more experience were less impacted than those at lower levels or with less experience. In a sample of Norwegian athletes, elite and semi-elite athletes reported higher levels of insomnia, anxiety, and depression than Olympians and Paralympians (Pensgaard et al., 2021). In a sample of Italian athletes, di Fronso and colleagues (2020) found that elite competitors did not report nearly the same increase in stress as their novice counterparts as a result of the pandemic, nor did they report as much of a decrease in functional psychobiosocial states. Among elite Spanish athletes surveyed during mass quarantine, low distress tolerance was predictive of greater anxiety, depression, stress, and alexthymia (and high distress tolerance was predictive of the opposite; González-Hernández et al., 2021). Years of sport experience was negatively related to all four of

these dysfunctional responses regardless of distress tolerance, although the average years of sport experience among those with higher distress tolerance was nearly 10 years more than those in the low distress tolerance group (16 years versus 7 years). Further, in a sample of Turkish student-athletes, athletes of lower performance level and less competition experience reported greater fear of the COVID-19 virus (Kaçoğlu et al., 2021). The functional responses and lesser decline in mental health among high-level or experienced athletes may be explained by their access to greater resources and support from coaches and potentially from psychology practitioners (Pensgaard et al., 2021). Also, competing at higher levels and gaining more sport experience may help athletes develop more coping skills and a greater capacity to respond in stressful situations after various high-stress sport experiences.

In some studies, higher-level athletes actually demonstrated poorer psychological responses during the pandemic. For instance, in a sample of Italian athletes, adult elite athletes reported higher levels of hyperarousal (a measure of psychological stress) during the pandemic as compared to amateur athletes (di Cagno et al., 2020). In a study of 759 competitive athletes (average age =  $27 \pm 10$  years; 49% female, 51% male), anxiety about returning to sport was higher among athletes competing at higher levels (national and international, compared to regional competitors; Ruffault et al., 2020). The authors note that these findings were different from what was found in previous studies regarding level of sport competition and anxiety during the pandemic. They attributed this difference to the fact that they were specifically assessing anxiety about returning to sport, during a time when high-level athletes had little or no information about when they would be returning and therefore a lack of clarity about how to best prepare.

**Sport Type.** Differences in mental health during the pandemic have been identified between athletes who participate in different sports. Among amateur and elite Italian athletes surveyed during mass quarantine, individual sport athletes reported higher distress scores than team sport athletes (di Cagno et al., 2020). Similar findings were reported by amateur and professional Nigerian athletes during quarantine, as individual sport athletes reported higher levels of psychological distress than team sport athletes (Uroh & Adewunmi, 2021). These differences can be explained by (a) the interruption of training and competition created less stress for team sport athletes because the responsibility to perform is distributed across an entire team rather than one individual, and (b) team sport athletes may have more contact and shared risk with others as compared to individual sport athletes (di Cagno et al., 2020; Uroh & Adewunmi, 2021). In line with the aforementioned findings, in a study of Italian athletes from various levels and sports, team sport athletes reported higher levels of social identity, exclusivity, and negative affectivity (all subscales of athletic identity measure) than individual sport athletes or non-elite athletes (Costa et al., 2020). The authors speculated that this increase in athletic identity was likely a way of mitigating the increased negative effect that team sport athletes experiences as a result of reduced contact with their teammates. Contrarily, Cosma and colleagues (2021) found no differences in anxiety or negative impact of the pandemic between individual and team sport athletes in Romania. However, they did find differences between athletes of specific sports: pandemic-related anxiety was lowest among those who competed in football (soccer) and kayak-canoe, and highest among tennis athletes. Athletes who reported the lowest negative impact due to COVID-19 were tennis and football (soccer) athletes, and those who reported the highest negative impact were kayak-canoe, basketball, and track and field athletes. The authors attribute



some of these findings to the fact that certain sports (e.g., kayak-canoe) must be done outdoors in very specific environments.

**Athletic Identity.** Athletic identity has also been studied during the pandemic. In a sample of Division II, III, and NAIA collegiate athletes, the athletes were surveyed just prior to the COVID-19 pandemic (February 2020) and during the pandemic (April 2020) and demonstrated decreases (43%), increases (29%), and no changes (28%) in athletic identity in that time (Graupensperger et al., 2020). In this study, perceived social support from teammates was associated with athletic identity staying the same or increasing, which in turn was tied to positive psychological well-being and lower depression. In Costa's aforementioned study of Italian athletes and athletic identity, those athletes who reported higher athletic identity also tended to ruminate and catastrophize more during the pandemic than athletes who reported lower athletic identity (2020). The authors noted that this was a novel finding, and speculated that it was a demonstration of athletes' responses as a result of being away from their typical training and sport environments. Finally, Nigerian athletes (amateur and professional) who reported higher athletic identity exhibited less psychological distress (Uroh & Adewunmi, 2021). The authors expressed that increasing athletic identity may have been a means of avoiding anxiety and psychological distress, as it has been found in other studies that increased self-identity leads to reduced anxiety levels (Masten et al., 2006).

**Training and Physical Activity During Quarantine.** Maintenance of a regular sport training routine or regular physical activity during the pandemic was associated with generally better mental health during the pandemic for athletes and non-athletes alike. In a sample of French people who participated in competitive sport at various levels, participants who had training programs during the mass quarantine reported lower physiological anxiety (somatic

tension and autonomic hyperactivity), higher perceived control over their return to sport, and higher autonomous motivational regulations to return to sport (i.e., identified and integrated regulations of extrinsic motivation and intrinsic motivation) than those who did not follow any training program (Ruffault et al., 2020). Further, the group of adolescent Spanish athletes who were most negatively impacted by COVID-19 (worst reported impact of pandemic and poorest mental health) reportedly had worse training conditions during the pandemic as compared to those who were less impacted (Pons et al., 2020). A study of the general population demonstrated that individuals with the greatest decreases in physical activity reported lower physical and mental health during the pandemic, while those with the highest increases in physical activity reported greater increases in sleep and less weight gain (Ruiz et al., 2020). Physical activity has been strongly identified as means of stress reduction and mood improvement for various reasons, including chemical processes within the body, tension reduction, and serving as a distraction from stressors (Anderson and Shivakumar, 2013; Hilt & Pollak, 2012; Steptoe et al., 1998). This is a likely explanation for the relationships identified between training during the often challenging experience of quarantine during COVID-19, and mental health and well-being.

**Coping Strategies.** Athletes have implemented various strategies in an effort to cope with challenges brought on by the pandemic. In fact, the perceived ability to cope with the COVID-19 pandemic and the accompanying challenges have been associated with decreased risk anxiety, depression, and insomnia symptoms among elite athletes (Pensgaard et al., 2021). In multiple studies of athletes during the pandemic, a qualitative approach was taken in order to identify coping strategies that they implemented and found helpful. In one such study of 21 Austrian Olympic athletes (8 female, 13 male) and six male coaches, the athletes reportedly dealt

with the postponement of the Olympics by distancing from their sports, practicing cognitive reframing, appealing for acceptance (e.g., claiming to stay positive), and developing training plans for the future (Oblinger-Peters & Krenn, 2020). In a similar qualitative study of eight British elite athletes (5 female, 3 male), the athletes described the following strategies as being helpful during mass quarantine: gaining acceptance over the situation, broadening their identities by trying new activities, and developing new routines to provide structure (Whitcomb-Khan et al., 2021). Finally, in a study of 44 elite boxers (11 female, 33 male) from the United Kingdom, the athletes responded to open-ended questions regarding the strategies they used to regulate their mood states during the pandemic. They described appraising COVID-19 as an opportunity to train, continuing to exercise and train, and focusing on goals as ways that they regulated their mood states (Roberts, & Lane, 2021). Perceived social support also appeared to be valuable to the athletes; they reported that experiencing feelings of togetherness and maintaining relationships through communication with other athletes and coaches were helpful in regulating their moods during mass quarantine. Athletes also identified emotional suppression (e.g., “not thinking about it”) and eating more frequently as behaviors that they had attempted to regulate their moods during the pandemic. The authors noted the more positive responses that some of the boxers had during such a restrictive time, “adapting training and creating a more positive attitude (p. 10).

Other studies of athletes have addressed certain behaviors and foci that had changed since the start of the COVID-19 pandemic, and particularly behaviors that have been previously identified as means of coping with challenges. For instance, Martínez-González and colleagues (2021) studied changes in athletes' goals through surveys given before and during the mass quarantine; goal setting is a coping mechanism in that it is a problem-solving approach to dealing

with challenges. The researchers surveyed university student-athletes in Spain (50% female, 50% male), and found a general decrease in autonomous goals (i.e., goals that are driven by intrinsic desire or identified regulation) when assessed prior to and during the mass quarantine (Martínez-González et al., 2021). Controlled goals, or those that are driven by external factors or negative feelings, did not change between the two time points. Further, the researchers found that more resilient athletes showed increases in controlled goals and as a result, demonstrated an increase in subjective vitality (the opposite pattern took place among less resilient athletes). In a study of elite Swedish athletes, 7% reported that they gambled more and 16% reported that they consumed more alcohol than usual during the pandemic (Håkansson et al., 2020). While not directly discussed in the study as coping mechanisms, problematic substance use and behavioral addictions such as gambling are often seen as a result of maladaptive coping in response to challenging emotions (Blaszczynski et al., 1990; Metzger et al., 2017).

*Differences in Coping Styles.* Athletes differed in their approaches to coping and regulating emotions during the COVID-19 pandemic based on gender and competition level. Among Italian athletes (610 women, 515 men; mean age = 27.47) of various sports and levels, their approaches to cognitively regulating their emotions during COVID-19 varied by gender, level of competition the interaction of gender and sport type, and the interaction of gender and level of competition (Costa et al., 2020). Specifically, women reported “putting things into perspective” and ruminating more than men, while men reported more planning and blaming of others. Elite athletes reported more planning and acceptance, while non-elite athletes reported more self-blame. Women competing in individual sports, and men competing in team sports, reported more catastrophizing, while elite men and women both reported more acceptance

compared to their non-elite counterparts. Finally, athletes with stronger athletic identities reportedly ruminated and catastrophized more than those with lower athletic identities.

In another study conducted during the pandemic, Polish potential Olympians (29 women, 28 men; mean age = 26.61) and physical education students (26 women, 28 men; mean age = 25.69) were surveyed about their strategies for coping with stress (Szczyńska et al., 2021). Male Olympic hopefuls reported using positive re-evaluation and active coping more than students, and were less likely to practice self-blame or use psychoactive substances to cope. Female Olympic hopefuls reported using positive re-evaluation, active coping, and acceptance more than students, and were less likely to use denial (an avoidant coping strategy).

Finally, Pété and colleagues (2021) identified coping profiles of French athletes based on their responses to multiple questionnaires that assessed their coping strategies during the pandemic. Based on their responses, they divided the athletes into four coping profiles: self-reliant copers, avoidant copers, engaged copers, and active and social copers. Self-reliant and avoidant coping were considered maladaptive, while engaged, active, and social coping were considered adaptive due to the implementation of strategies that “reduce...the effects of stressful situations on well-being and health (Pété et al., 2021, p. 2). The majority of participants who fell into either of the two adaptive coping profiles were those competing at the highest levels (international and elite) and with the most years of sport experience, supporting the notion that high level athletes are generally more equipped to cope with challenges.

The various precautionary measures put into place and societal changes resulting from the COVID-19 pandemic majorly impacted sport at every level of competition. The components of the integrated model and the stages of grief model are well understood relative to sport injury and being released from one's team, and they may also help explain athletes' responses relative

to the COVID-19 pandemic as it similarly led to an involuntarily hiatus from sport and major unexpected disruptions to athletes' lives. However, the COVID-19 pandemic is unique in that the same general limitations have been placed on a large percentage of collegiate athletes simultaneously. Due to the unique and unpredictable nature of this global disaster, there is a great need to understand the impact that it has had and will continue to have on athletes, as well as their resulting emotional, psychological, and behavioral responses.

## **Appendix B**

### **Extended Methods**

A researcher's philosophical stance, and the research questions being asked, inform the methodological approach of a study, and each of these components is critical to conducting high-quality research. In order to be transparent and clear in regard to the chosen methodology, this section includes a brief explanation of the primary researcher's beliefs about reality and the attainment of knowledge. Additionally, prior to beginning the study, the researcher wrote a positionality statement in which she reflected upon her previous experiences and preconceptions that could have ultimately influenced her interpretations within this study—both during the data collection and data analysis processes. Finally, this section includes descriptions of the methodology, participants, procedures, and data analysis processes.

#### **Ontology**

Ontology is the study of what truly exists, or the “assumptions that can be made about the ultimate reality of things” (Slife, 2004). Positivism holds that there is one objective reality and one ultimate truth, while idealism holds that a unique reality is created and experienced in each individual's mind (Sale et al., 2002). I maintain an idealist ontological perspective: while there are experiences that humans seemingly share with one another, each person has different perceptions and meanings associated with that phenomenon. Additionally, all that each person can know most certainly is that he or she is conscious; there is no way to be sure that reality and the world as we experience it truly exists outside of our individual minds. Therefore, it is valuable to explore individuals' experiences of a particular phenomenon beyond simply attempting to understand the phenomenon on its own.

#### **Epistemology**

Epistemology is the study of knowledge, or the study of what can be known and how it can be known. It attempts to distinguish between justified belief and subjective opinion. What constitutes a “justified belief” varies depending on one’s epistemological perspective. From an objectivist perspective, the objective truth or reality can be measured and verified with no influence on or by the investigator (Denzin & Lincoln, 1994 as cited in Slevitch, 2011; Smith, 1983). The subjectivist perspective, alternately, is rooted in idealism and suggests that justified belief is completely dependent upon the investigator’s perceptions and interpretations of a phenomenon (Guba & Lincoln, 1994). I maintain a subjectivist view, as I believe that we can know the truth only through our own interpretations and those of others. Our understanding of a phenomenon cannot exist in a purely objective, measurable sense; the investigator cannot be separated from the phenomenon or bracket her experiences so as not to influence her interpretation in some way.

### **Positionality**

In phenomenological research, the researcher is the instrument for collecting and interpreting the data (Hopkins et al., 2017), and from a hermeneutic perspective the researcher’s beliefs and assumptions unavoidably influence how research is conducted, the outcomes, and the results (Rowe, 2014). Positionality reflects the researcher’s position within a given research study, and can be identified by locating the researcher’s perspective and experiences related to (1) the subject being studied, (2) the participants, and (3) the research context and process (Holmes, 2020; Savin-Badin and Major, 2013). Therefore, the researcher should acknowledge and make clear his or her background and the preconceptions that come with it. Prior to conducting interviews with athletes about their experiences related to COVID-19, I reflected



primarily on my own experiences related to COVID-19 (through July 2020) as well as my relevant sport-related experiences.

### *COVID-19 Experience*

The COVID-19 pandemic impacted my life in what I would describe as mostly positive ways, although with some personal challenges as well. When social distancing measures were first put into place in March 2020, I was an adjunct instructor at a university in Washington, D.C. and also working for a private tutoring company in the area. These safety measures took a toll on me initially on a personal level, as I generally spent most of my time outside of my home and struggled to remain at home for long stretches of time. Additionally, I had only lived in D.C. for about seven months at that point and my social interactions largely consisted of attending improv classes and shows, group meditations, and community events. As businesses were closing (particularly coffee shops and libraries that I would frequent) and group gatherings were being cancelled, I started to feel anxious and sad as my routine was severely disrupted and my normal interactions were cut off. The gym that I was a member of also closed eventually, which hugely disrupted my usual exercise routine. I believe that the initial shock I experienced due to COVID-19 measures, and the emotional impact that it had on me, led me to assume that the initial implementation of safety measures had a physical and emotional impact on others as well. This is an assumption that should be taken into consideration as I prepare to interview athletes about this phenomenon.

Within the first week of social distancing measures, both of my jobs transitioned to online formats (university teaching and private tutoring). I am comfortable with online work and had taught online courses many times before, so this transition was simple for me. In fact, it was a welcome transition in that it allowed me to relocate from D.C. to my hometown of San Diego

while social distancing measures were in place. I worked remotely for nearly three months, and the flexibility that this afforded me in both positions made it an enjoyable and even preferable experience. In San Diego, I stayed with my parents in their home; my sister was living at home as well, as she was temporarily laid off from her position as a restaurant manager in Boston, MA. These circumstances allowed our immediate family to spend a lot of time together, which normally would not happen since my sister and I lived across the country from our parents. The time as a family was a very enjoyable bonding experience, and without the same time pressures that usually existed in our daily lives, afforded us more opportunities to relax together. Although I know this pandemic devastated many individuals and families, through my own experiences I believe that positive outcomes can result from the situation as well.

While the COVID-19 pandemic initially presented me with a great opportunity to spend time with family, by May 2020 the situation began to take an emotional toll on me. First, my work as a university instructor came to an end for the semester and I left my position as a tutor due to general dissatisfaction. While I was financially stable, I no longer had a steady income and even more challenging, began to lose my sense of purpose. Also, having spent the better part of three months living in my parents' home, I began to feel like a child again and felt I was losing any semblance of the "adult life" that I had built for myself over the last 12 years. This led me to experience and exhibit symptoms of anxiety and depression, including general lethargy and lack of motivation, sleep changes (e.g., insomnia at night, oversleeping during the day), fatigue, agitation, and an overall helpless and hopeless perspective.

Around this time (not necessarily related to these symptoms), I decided to look for more long-term professional opportunities in California and move out of Washington, D.C. I flew from San Diego to D.C., packed and moved out of my apartment, and spent over a month

visiting friends and adventuring around the country on a long, meandering road trip back to California. Upon embarking on this trip, I immediately felt much better emotionally and much more productive. Pandemic-related social-distancing measures and closures limited the establishments that I could go to during my travels, but this led to much more time spent outdoors in nature and visiting with friends either outdoors or in private spaces. This trip allowed me time and space to reflect, while reconnecting with myself, others, and different environments. From March to July of 2020, I experienced a rollercoaster of emotions due to (and in the midst of) societal changes associated with COVID-19. I am aware that others may have had similar experiences as they faced many changes and unknowns, but also acknowledge that everyone did not necessarily experience this range of emotions and experiences during the pandemic (up to this point).

As far as my direct reaction to COVID-19, I have taken the necessary safety precautions but maintained a fairly relaxed mentality regarding COVID-19 (as did many of my family members and friends). I believe this is largely because we have not felt the impact very strongly; we do not personally know anyone who has died due to the virus and distantly only know a couple of people who have recovered from the virus, we are all financially stable, and our well-being has not been directly affected. I come from a white, middle-class family, which in many ways has put me at less risk physically and economically. While I wear a mask in public spaces to prevent the spread of airborne particles (this is also a local requirement in many areas that I have been in during the COVID-19 pandemic), I do not hesitate to leave the house when I want to pick up food, go for a run or walk, or go to a grocery store. In April, I went on a camping trip with my family in which we were largely isolated but still interacted with plenty of other people along the way. As I traveled in June and July, some establishments were open again with social

distance measures in place. I spent time in some of these coffee shops, restaurants, and bars—always following safety guidelines and social-distancing measures, but spending time in public spaces nonetheless. I believe my mindful, responsible but somewhat nonchalant perspective on social distancing is a result of my personality, social influences, and the privilege that I enjoy as a young, healthy, white, middle-class American. This perspective on COVID-19 and the proper measures to take is one that I must acknowledge relative to this research study, as it may impact assumptions that I initially make about perspectives and approaches that vary from or align with my own.

### *Experience as a College Athlete*

My sport experiences, particularly in collegiate athletics, are also important to be aware of considering the population being interviewed will be collegiate student-athletes. From a young age, I adopted a strong athlete identity that has infiltrated much of my life, both personally and professionally. I fell in love with basketball before I had reached elementary school, and played competitively through my sophomore year of high school. I also participated in volleyball, lacrosse, track and field (e.g., discus, shot-put, pole vault), and rowing, competing on school teams and traveling club teams. In my senior year, I reached out to a few collegiate rowing coaches with my film. The novice women's rowing coach at the University of Southern California (USC) responded with interest, invited me on an unofficial visit, and offered me a preferred walk-on position (i.e., guaranteed a roster position, but no scholarship) if I was admitted to the university. I was ultimately admitted, and became an official member of the USC Division I women's rowing team.

I was a member of the novice rowing team from August through February of my freshman year. The novice team consisted of freshmen who were not receiving athletic

scholarships, while the varsity team was made up of the older athletes—most of whom were receiving at least partial scholarships. Our schedule consisted of practice on the water six days per week in the early morning, team workouts, and the occasional visit to the athletic trainer. We were also tested on rowing ergometers, which served as a measure of our power output (and indirectly, mental strength and willpower). I consistently produced the highest scores on these tests within my team, but due to my short stature my coach believed my output did not necessarily carry over to the boat and I was not considered a top performer. At times, this reality was frustrating and deflating. I also never looked forward to practice, which is a theme that has carried throughout my life. I typically experience stress before sport practices and competitions, which I attribute to the self-imposed expectation that I give all of my effort all the time, and the anticipation that it will be physically and mentally exhausting. I believe I also maintained a fear of failure, which in all likelihood contributed to the pressure and stress that I experienced.

Though I value the time I spent on the rowing team, it was an emotionally and physically taxing experience for me. I enjoyed living with my teammates, developing friendships, and reaping the benefits of Division I athletics, but my time on the team was generally stressful and uncomfortable. Early in my second semester, as we neared the main rowing competition season, I met with a sport psychologist at USC and through our conversations ultimately decided that it was in my best interest to leave the team. Beyond my internal challenges, rowing was also taking time and attention away from my studies, for which my parents were paying a great deal of money (and it was not likely that I would ever earn a rowing scholarship). After leaving the team, I competed on the university's club lacrosse and club rugby teams, and occasionally trained with the club triathlon team.

In relation to this study, my brief experience as a collegiate athlete should be taken into consideration for multiple reasons. First, my time on the “inside” of Division I athletics means that I have an in-depth understanding of its various facets—from the benefits to the rules and regulations, to the imposed expectations and time commitments. There is value in this as it may facilitate my interviews with participants while they explain their nuanced experiences as Division I athletes. However, I must also maintain awareness that my experience was over a decade ago, at one particular university, on one specific team, through my own lens at the time. The current lens through which I think about collegiate sports is colored by my limited, somewhat unfavorable experience in that world; while I maintain a fairly neutral perspective on collegiate sports overall, I cannot erase my own lived experience and thus must constantly notice how I discuss and interpret athletes’ experiences in this study.

### *Experience as a College Coach*

As my career as a competitive athlete ended, I began to pursue a career as a strength and conditioning coach. After college, I worked as a strength and conditioning graduate assistant for two years at a small Division I university in Texas. While I believe my time as a college athlete is most relevant to the current study, my understanding of Division I sports may also be colored by the time I spent as a professional within this system. During these two years, I had more exposure to the political and business-like aspects of college sports, which also affords me a unique understanding of the system. Once again, I must remain aware of my thoughts and biases that formed through my time as a coach and acknowledge their value but also their potential to influence my interpretation of athletes’ experiences in this study.

### **Methodology**

An approach based in hermeneutic phenomenology was taken in order to explore collegiate athletes' experiences related to the COVID-19 pandemic, particularly as they related to sport. Phenomenology is the study of human experience, in an effort to understand a phenomenon as it is experienced by different people. Hermeneutic (interpretive) phenomenology explores peoples' lived experiences through their own interpretations while acknowledging the role of the researcher and his or her background knowledge and preconceptions (Heidegger, 1927). It has been aptly described by Dr. Peter Willis as a process by which "people interpret and make sense of experiences...according to their pre-existing values and ways of seeing the world (2001, p. 5; as cited in Ho, Chiang, & Leung, 2017). Hermeneutic phenomenology is a departure from the descriptive phenomenological approach, which is an attempt to understand the essence of an experience based in the assumptions that (a) the researcher must not allow his or her preconceptions to influence the object of study, (b) the subject's experiences should be studied objectively, bracketing the context and environment in which they live, and (c) humans are free agents who can influence their own environments (Husserl, 1954; Lopez & Willis, 2004). Contrary to its predecessor, hermeneutic phenomenology goes beyond description and searches for meanings that people glean from their experiences. This approach rests on the beliefs that (a) the researcher's existing knowledge and preconceptions cannot be bracketed and in fact are valuable (though they should be clearly expressed; Geanellos, 2000), (b) the subject's experiences cannot be separated from the world they live in, and (c) humans have situated freedom, or the ability to make choices only within the context that external conditions allow them to do so (Heidegger, 1927; Leonard, 1999).

To remain consistent with the assumptions of hermeneutic phenomenology, the current study includes a positionality statement that the primary researcher wrote prior to engaging in the research process. In this statement, she discussed previous experiences and perspectives that could have influenced her interpretation of the participants' experiences during the interview process and the data analysis process. Additionally, the interviews were structured to not only capture the participants' descriptions but also the meanings they derived from their experiences relative to COVID-19 and the context in which those experiences happened. Lastly, an important idea within hermeneutic phenomenology is that the meaning derived from participants' experiences results from the merging interpretations and meanings made by both the participant and researcher. In line with this idea, a thematic analysis was conducted to interpret the data. This is an analytical approach based on Heidegger's (1927) ontological perspective of "being-in-the-world" (in German, *Dasein*): the objective and subjective cannot be separated, consciousness is an integrated component of being, and interpretation is based on understanding. From this perspective, the researcher's biases and assumptions could not be bracketed and instead needed to be considered throughout the research process. While descriptive phenomenology focuses on descriptions of experience from a presupposed separate consciousness, hermeneutic phenomenology involves interpretation of one's experience—biases and assumptions included.

### **Participants**

The following quote nicely encompasses what the researcher sought to and arguably did achieve in her recruitment of participants: "People...enter qualitative studies primarily by virtue of having direct and personal knowledge of some event that they are able and willing to communicate to others and only secondarily by virtue of demographic characteristics"



(Sandelowski, 1995). In this case, the event was COVID-19 and the participants were specifically Division I athletes whose seasons were impacted as a result of safety measures put in place during the global pandemic. Division I collegiate student-athletes who were at least eighteen years old at the time of the study were recruited to participate in interviews.

An additional requirement for participation was that the athletes had to be competing in a sport that was impacted by the COVID-19 pandemic (winter and spring sports during 2019-2020 season, fall sports during the 2020-2021 season). The sports impacted by the COVID-19 pandemic were logistically altered in different ways, depending upon the season. The NCAA cancelled many winter sports and all spring sport championships (2019-2020 season), and most of these sports ended abruptly as a result of these changes and COVID-19 precautions. Because winter sports were further along in their 2019-2020 seasons, these athletes were not granted an additional year to make up for any missed competition time. However, the NCAA did grant an additional year of eligibility to spring sport athletes participating in the 2019-2020 season (although this was not honored by all schools and conferences; Pickman, 2020; West, 2020). Athletes competing in fall and winter of 2020-2021 were not faced with an abrupt end to their seasons, but the fate of many of their seasons remained unknown as the 2020-2021 seasons neared. The NCAA ultimately postponed fall sport championships (2020-2021 season) until spring of 2021, once it was clear that the impact and spread of COVID-19 was going to continue. Individual conferences made modifications to schedules or cancelled seasons altogether in order to reduce the spread of the virus (Kilgore, 2020; Robinson, 2020; The Ivy League, 2020). Due to modified and inconsistent seasons, the NCAA also granted an extra year of eligibility to athletes who competed in fall 2020 and winter 2020-2021. Therefore, in order to

able to participate in the study, there were various different ways that athletes' sport experiences could have been altered as a result of the pandemic.

A purposeful, maximum variation sampling approach was used to gain an understanding of varied experiences within the broad population of Division I collegiate athletes. The researcher employed a demographic variation approach (i.e., variation is based on people-related characteristics rather than phenomenal or theoretical variations; Sandelowski, 1995) to include a near equal number of male and female athletes. It seemed of value to interview both males and females considering differences that had been identified in their reported experiences of sport injury (Granito, 2002), so it was possible that notable differences would appear in their experiences of COVID-19 as well. The study only included athletes who had remaining years of eligibility and planned to return to their college teams. This was *based on the athletes' knowledge* at the time of study recruitment. The researcher recruited from multiple institutions across the United States with the intention of interviewing athletes from various settings; athletes were recruited from institutions of differing sizes and locations in an effort to achieve maximum variation. Athletes were also recruited from a range of sports in order to capture experiences that varied based on sport culture and also the likelihood that an athlete might be able to continue their career in their respective sport at a professional level.

### ***Sample Size***

In order to sufficiently describe a phenomenon, scholars have made various sample size recommendations for qualitative research studies: Creswell (1998) has suggested five to twenty-five participants, Morse (1994) has suggested at least six participants, and Kuzel (1992) has suggested that maximum variation studies should include twelve to twenty participants. Many qualitative research approaches are based in *theoretical saturation*, or the point at which the

researcher is confident that the addition of more data will not lead to the development of any new categories (Glaser & Strauss, 1967). Noting the subjectivity and lack of clarity regarding when theoretical saturation is achieved, Guest, Bunce, and Johnson (2006) attempted to operationalize this important step and found that after conducting twelve interviews, they had created approximately 90% of the total number of codes that resulted after sixty total interviews. Additionally, a sample size that is too large in qualitative research can lead to compromised in-depth analysis of each interview (Sandelowski, 1995). Crouch and McKenzie (2006) recommend that qualitative researchers include no more than twenty participants in one study in order to improve the relationship and flow of information between the researcher and participants.

While this information provided a helpful starting point for thinking about a general sample size, trustworthy phenomenological research is dependent on sampling adequacy more so than sample size (Bowen, 2008). As van Manen explains, "...there is no saturation point with respect to phenomenological meaning" because human experiences are so saturated with meaning that a "final" or "determinable" analysis of the experience cannot be achieved (van Manen et al., 2016, p. 5). Based on prior suggestions and findings, the researcher aimed to conduct interviews with at least eight and no more than twelve athletes for the current study. However, the final number of participants was determined based upon the researcher's assessment of the extent to which all evident and knowable experiences of the phenomenon had been accounted for (Bowen, 2008; Morse et al., 2002). In regard to the current study, this consisted of ensuring that athletes who were interviewed were representative of multiple men's and women's sports, different racial-ethnic backgrounds, different years in school, and schools of different locations and sizes. Ultimately, eleven participants were interviewed (gender: male

= 5, female = 6; sport: soccer = 4, softball = 2, football = 1, baseball = 1, track and field = 1, cross country = 1; race: White = 6, Black = 2, Hispanic = 2, Asian = 1; year: freshman = 1, junior = 4, senior = 3, graduate student = 3; school region: South = 6, West = 4, Midwest = 1; school enrollment ranged from 6,500—55,000). Participant demographics can be found in Table 1, and institution demographics can be found in Table 3 (Appendix G).

### **Procedures**

Upon receiving institutional review board approval, the researcher began to recruit participants through a combination of purposive and snowball sampling. Purposive sampling is the intentional selection of possible participants based on their ability to speak to a particular experience or phenomenon (Robinson, 2014). Snowball sampling is a convenience sampling method in which the researcher identifies a typically hard-to-reach population and uses social networks to recruit participants representative of this population (Coleman, 1958; Goodman, 1961; Naderifar et al., 2017). This approach is valued in qualitative research because it is efficient, cost-effective, and “allows for sampling of natural interactional units” (Biernacki & Waldorf, 1981; Naderifar et al., 2017).

First, the researcher engaged in purposive and snowball sampling by utilizing the publicly available list of NCAA Division I Student-Athlete Advisory Committee (SAAC) members at the time of the study and directly emailing each person on the list. Division I SAAC is made up of 32 student-athletes; each of the 32 Division I conferences has a representative on this committee. The recruitment email invited the person being emailed to participate in the study if they met the criteria, and also invited them to share the information with other Division I athletes who met the criteria. The email also included a brief explanation and general description of the purpose and nature of the interviews, which allowed participants some time to think about

their experiences of the phenomenon before the interview (Vandermause & Fleming, 2011). A link to a more comprehensive explanation was included in the email as well.

The researcher also took a snowball sampling approach by leveraging existing contacts to recruit participants. Specifically, a Division I strength and conditioning coach in the southeast region of the United States, and a high school teacher in the southwest region, served as moderators who connected the researcher with Division I collegiate athletes whose seasons had been impacted by COVID-19 safety measures (Bergen, 1993; Joseph et al., 2016; Morse & Field, 1995). A possible limitation of snowball sampling that has been identified is that participants may be connected through the same social network, which could limit the findings to an overly narrow representation of the target population (Penrod et al., 2003). However, in the current study participants were recruited through multiple networks or “multiple snowballs” to achieve maximum variation. Specifically, by leveraging contacts with differing social networks (i.e., athletes at schools in different regions of the country), for the purpose of this study there was sufficient diversity within the sample attained through snowball sampling. Upon agreeing to assist with recruitment, each moderator was provided a brief but clear explanation of the eligibility criteria (Biernacki & Waldorf, 1981) along with an explanation of the study to be shared with possible participants (the same explanation that was provided to the Division I SAAC representatives). The recruitment message that was emailed to athletes and provided to moderators can be found in Appendix D.

### ***Data Collection***

Data was collected through phenomenological interviews to directly explore the phenomenon of COVID-19 as experienced by each participant. The interviews were semi-structured; one primary question addressed the athlete’s perceived experiences of the COVID-19

pandemic, and another addressed how the athlete had responded to the COVID-19 pandemic (see Appendix E: Alignment of Research Questions and Interview Questions). Probes followed each question to elicit further detail. Participants were asked to describe experiences that stood out to them, which created a participant-driven interview dynamic rather than interviewer-driven (Englander, 2012; Vandermause & Fleming, 2011). The researcher also asked participants whether they had ever experienced an injury that prevented them from participating in sport; if they had ever had this experience, then they were further asked to compare how reduced sport participation due to COVID-19 compared to reduced participation due to injury. This question contributed directly to the exploration of how athletes' experiences of COVID-19 compared to their experiences of injury.

As this study was based in hermeneutic phenomenological tradition, the goal was to understand each individual's experience of the phenomenon and the meaning they derived from it. Therefore, the hermeneutic phenomenological interview often "...bears a resemblance to conversational dialogue" as unstructured questions are used by the researcher to elicit description from the participant (Vandermause & Fleming, 2011). This dialogue is how the data emerges "...as the narrative text is co-created between the researcher and the participant" (Crist & Tanner, 2003, as cited by Vandermause & Fleming, 2011). Adopting a conversational approach, the interviewer asked questions, used incomplete sentences, and looked for assent in order to clarify meaning when necessary (rather than using a structured interview with pre-conceived questions; Vandermause & Fleming, 2011). The researcher asked additional questions that arose naturally from participants' responses to the primary questions, which encouraged further elaboration or detail. The researcher took this approach rather than asking *why*, which can rightfully lead participants to feel like they must provide justifications and thus possibly become

defensive (Dale, 1996). The use of incomplete sentences (i.e., so...not...) in response to participants allowed them to add more to their responses without feeling pressure to respond in a particular way. Additionally, by looking for assent (i.e., so, you were worried), the researcher questioned her own understanding of what the participant was saying and thus looked to the participant to affirm whether or not her understanding was correct (Vandermause & Fleming, 2011). The semi-structured interview guide can be found in Appendix F. A pilot interview was conducted with an athlete in order to assess and refine the interview guide before conducting interviews with participants. However, the nature of the interview questions did not change after the pilot interview; therefore, the athlete who participated in the pilot interview was ultimately included in the study as a participant.

Interviews took place via Zoom, a cloud-based videoconferencing service that allows for secure recording and storage of video meetings without using third-party software and uses real-time encryption of meetings (Zoom Video Communications Inc., 2020). This allowed the researcher and each participant to both see and hear each other during the interview, which was valuable in capturing nonverbal interactions and building rapport in qualitative interviewing from a distance (Archibald et al., 2019; Deakin & Wakefield, 2014; Lo Iacono et al., 2016). Zoom has also been touted by qualitative researchers and participants due to its ease of access, time and cost effectiveness, simplicity, and user-friendliness (Archibald et al., 2019). Further, the meetings were recorded and some were automatically transcribed through Zoom. The researcher created a Zoom meeting for each respective participant and sent the link to each participant prior to the meeting. In order to ensure that only the researcher and participant had access to the Zoom meeting, a passcode was required (which was also shared with the participant) and a waiting room was set by the researcher. The participant was

reminded that the interview audio would be recorded and that only the primary researcher would have access. Then, the researcher began to record the meeting.

### **Data Analysis**

An inductive approach was used to address both research questions: How has the COVID-19 pandemic affected college athletes' lives relative to their sport participation? How have college athletes responded to the COVID-19 pandemic, and how does this compare to athletes' responses to injury? A deductive analysis was also conducted in order to fully address the second research question. A research team was developed that consisted of the primary researcher and two individuals with doctoral degrees in sport, exercise, and performance psychology, all three of whom participated in thematic analysis as outlined by Braun and Clarke (2006).

#### ***Research Question 1: How has the COVID-19 pandemic affected college athletes' lives relative to their sport participation?***

In line with philosophical tenets of hermeneutic phenomenology, thematic analysis was used to analyze the data and identify ways in which the COVID-19 pandemic affected athletes' lives (van Manen, 2016). First, the members of the research team independently familiarized themselves with the data by reading all the interviews once before beginning the coding process (Braun & Clarke, 2006). The interviews were conducted using the Zoom meeting platform and were transcribed using a combination of Zoom auto-transcription, a secure transcription service (Scribie, 2020), and manual transcription by the primary researcher and an undergraduate assistant. Through these various transcription tools and approaches, the primary researcher was able to read and re-listen to each of the interviews shortly after they took place in order to make any corrections to mistakes made during the transcribing process.



In the first phase of the thematic analysis, after the interviews were transcribed and double-checked for errors, all three members of the research team independently conducted initial read-throughs of the interview transcripts. This initial step allowed each member to develop a big picture understanding of each athlete's experience through immersion, which was valuable in noticing latent content and not purely explicit content. At this point, the two additional members of the research team also began to engage in reflexive journaling—a process that continued throughout the study—to document their theoretical and reflective thoughts, and possible coding ideas for upcoming phases (Lincoln & Guba, 1985). The primary researcher had begun the reflexive journaling process shortly after conducting the first interview and continued throughout the study as well.

In the second phase of analysis, each member of the research team generated initial codes from the data. Codes are the most simplified and specific elements of a thematic analysis, representing what each researcher interprets as the ideas being reflected in a short segment of data. A data-driven approach was taken during the coding process to allow codes to emerge naturally from the data; the parallels between the data and the integrated model of sport injury were not considered until later in the analysis so as to not limit the researchers' interpretations of the interviews. Interview extracts were either uncoded, coded once, or coded multiple times; there were no boundaries or expectations as far as how the researchers interpreted the data. However, as suggested by Saldana (2013), the research team did establish a somewhat systematic process for coding to ensure some consistency among individual researchers and the team. Specifically, upon beginning to code, research team members agreed that they would utilize *in vivo*, process, and emotion coding techniques (Saldana, 2013). These three techniques were selected because they were best suited to identify phenomenological experiences related to

the research questions; they can also be effectively used in combination with one another. In vivo coding is the practice of assigning a code to a section of data using direct words or statements from the data itself, verbatim (Given, 2008). Process coding is used to identify actions, and emotion coding identifies emotions that are recalled or experienced (Saldana, 2013). In line with suggestions by Nowell, Norris, White, and Moules (2017), the research team met multiple times throughout the coding process in order to engage in peer debriefing and to discuss evolving ideas and perspectives related to the data but did not discuss in such depth that they influenced each other's independent coding processes. Through independent and collective processes, the coders identified 16 parent codes that contained 1,583 child codes.

Once all data had been coded, the third phase of thematic analysis consisted of sorting the list of codes into categories that would eventually inform themes and subthemes. This was an analysis of the codes themselves and consisted of searching for relationships between codes to categorize them. Through this process, themes and sub-themes began to develop. The research team met during this phase to discuss the data and potential themes. They each continued to maintain reflexive journals about the process and the themes themselves in order to maintain trustworthiness (Nowell et al., 2017). By the end of this phase, three main themes and seven subthemes had been identified and an initial thematic map had been developed. The coders also worked together to develop a visual representation of the themes and subthemes, but this visual was improved in the next phase to more accurately reflect the relationship between themes.

In the fourth phase of analysis, coders reviewed and refined the themes that were developed in the previous phase. The coders had developed lists of the most salient coded excerpts from the interviews, and in this phase, they read the coded extracts to determine if they fell into a meaningful, coherent pattern within their existing themes. At this point, the aim was

to decide whether an overall theme was problematic for any reason, or if particular codes simply did not fit within that theme. At the end of this phase, the three primary themes remained although the wording was adjusted a bit to express the athletes' experiences more accurately and thoroughly. In this phase, one subtheme was split into two subthemes as, upon re-reading coded excerpts, it became clear that there was an experience athletes had that warranted being a subtheme on its own rather than lumped into another subtheme. During this phase, a thematic map was developed that built on the previous visual representation in order to demonstrate the relationships between themes. According to Braun and Clarke (2006), coders may identify new codes in this phase if relevant—however, they also note that re-coding could go on infinitely and therefore should stop when the research team agrees that the interviews are well-represented by the existing codes and themes. The research team did not identify any new codes at this point.

In the fifth and final phase of analysis, themes were clearly defined and named in a way that would make the essence of the theme immediately clear to readers. The primary researcher wrote a detailed analysis of each theme and subtheme, and then peer debriefing took place in which the other two coders read and gave feedback on the written analyses to ensure accuracy and detail. Throughout the data analysis process, the research team discussed themes and individual impressions in an effort to reach consensus. There were no disagreements or discrepancies that required the coders to move to a majority vote. Rather, the researchers effectively engaged in critical discussion and worked collaboratively to reach final decisions about codes, themes, and a thematic map, ultimately reaching consensus through discussion and feedback.

***Research Question 2: How have college athletes responded to the COVID-19 pandemic, and how does this compare to athletes' responses to injury?***

The analysis that took place to address the second research question was primarily inductive (data-driven) in nature, although a deductive (theory-driven) analysis was implemented afterward to identify how athletes' experiences fit into or diverge from the integrated model of response to sport injury (Wiese-Bjornstal et al., 1998). The interviews were coded all at once, so excerpts from the interviews that captured athletes' responses to the COVID-19 pandemic were coded in phase two of the thematic analysis used to answer the first research question. This was done without any influence or guidance from outside theories or models, in order to maintain the integrity of the inductive analysis and allow for data-driven results. From this point forward, the analysis took place in two parts: (a) identification of patterns of athletes' responses and comparison to typical responses to injury (via the integrated model), and (b) thematic analysis of athletes' direct comparisons between their injury and COVID-19 experiences.

**Athletes' Responses to COVID-19 and Comparison to Integrated Model of Sport Injury.** Following the coding process, the research team drew an organizational structure from the integrated model of response to sport injury (Wiese-Bjornstal et al., 1998), as the athletes' responses to the pandemic were varied and could not be adequately represented through overarching themes. The codes that emerged clearly aligned with factors that are part of the integrated model, as the athletes in the current study expressed various cognitive appraisals, emotional responses, and behavioral responses that were influenced by personal and situational factors. Therefore, the athletes' responses were organized into the following categories: cognitive appraisal (6 main responses), emotional response (3 main responses), and behavioral response (5 main responses). The three coders worked independently and collaboratively to ensure athletes' responses were thoroughly and accurately captured in the results. A visual

representation of the results was also developed and refined to reflect the relationships between the athletes' responses, which eventually became a part of Table 5.

After carrying out the inductive analysis and establishing a final thematic structure, the research team carried out a deductive analysis to fully address the second research question. Similar to approaches taken in previous injury-related studies (Grindstaff et al., 2010; Walker, 2006), this additional analysis explored any parallels between the participating individuals' athletic experiences associated with COVID-19 and the integrated model of response to sport injury (Wiese-Bjornstal et al., 1998). However, because athletes' responses to both COVID-19 and injury are too nuanced and complex to fully express in a table or visual, the research team came up with brief explanations of notable differences between athletes' responses in each situation (rather than simply identifying responses that converged with and diverged from one another). Since the results from the second research question had already been organized by categories similar to the integrated model, the coders were able to effectively compare athletes' responses to COVID-19 to the responses that athletes have typically reported in response to sport injury. Specifically, the three coders independently looked at the results from the current study alongside the integrated model of response to sport injury and determined notable differences between them. Then, similar to a thematic analysis, the coders' independent perspectives were all considered and combined to create a final list of notable differences between athletes' responses to the COVID-19 pandemic and injury. All three coders reviewed this list, and the notable differences were refined and included in Table 5.

**Athlete's Direct Comparisons Between Injury and COVID-19 Experiences.** If they had experienced a prior injury that prevented them from participating in sport for a period of time, athletes were asked how that experience compared to their experience with COVID-

19. Nine of the eleven athletes had prior injury experiences that they could reference to answer this question (two athletes did not have prior participation-limiting injuries). Their responses to this question were coded by all three coders in phase two of the thematic analysis. In phase three, the codes were categorized in order to identify initial themes, which were reviewed in phase four before being refined, named, and clearly defined in phase five. Three primary themes representing similarities and three primary themes representing differences were identified. The addition of athletes' commentaries on the differences between their injury and COVID-19 experiences further informed the results and clarified the uniqueness of their responses to the pandemic.

### ***Trustworthiness***

Trustworthiness refers to the quality of a qualitative study, and the extent to which the data can be trusted (Elo et al., 2014). Analysis of phenomenological data must be done carefully due to the “double hermeneutic” at play, or a researcher trying to understand what a participant is trying to understand about their own experiences (Smith & Osborn, 2008). In this study, steps were taken as part of the data analysis process, the member checking process, and in the presentation of the data to ensure a high level of trustworthiness. To achieve a high level of trustworthiness in the current study, multiple coding, peer debriefing, rigorous thematic analysis, and reflexive journaling were all implemented. Further, the findings have been presented through direct quotes, codes, themes, and visual aids. These findings were sent back to the participants to ask for any feedback upon interpretation, and no additional feedback was received.

First, various measures were taken to ensure a trustworthy data analysis process. The establishment of a research team allowed for multiple perspectives and unique interpretations of

the data. Through collaborative conversation, this allowed for a deeper exploration of the data as well as opportunities to identify and challenge how one person's perspective may have been influencing their interpretation of the data. Additionally, the research team carefully followed Braun and Clarke's well-cited outline of thematic analysis (2006) to ensure a thorough and credible analysis of the data (see Table 4 for thematic analysis steps, in Appendix G). Lastly, each member of the research team engaged in reflexive journaling throughout the analysis process (the primary researcher began reflexive journaling during the data collection process) to document decisions, rationales, and their own reflections to maintain an audit trail (Nowell et al., 2017; see Appendix H for primary researcher's reflexive journal). These steps were taken to address biases and unique perspectives of the research team, and to thoroughly analyze the data.

Trustworthiness of a qualitative study is also enhanced through researchers' transparency with the participants, and through involving the participants to the degree that they want to be involved. However, although frequently used, member checking has been found to provide limited value to qualitative research studies and response rates are often low (Smith & McGannon, 2018; Thomas, 2017). Therefore, participants in the current study received the interview transcript and ultimately the aggregated findings to review and provide any feedback or changes, however it was not expected of them. Upon being sent their individual transcripts for review, the participants were informed via email that, "If I [the researcher] don't hear from you within one week, I'll assume you're content with the transcript as is and move forward." After sending participants the interview transcripts, three of the eleven participants responded that they approved of their respective transcripts. Eight of the eleven participants did not respond. Upon being sent the aggregated findings at the end of the study, none of the athletes responded with changes.

Finally, intentional and thoughtful presentation of the data is a way of being transparent with readers and is also important in ensuring trustworthiness. In line with qualitative studies of sport injury, direct quotes from participants have been included in the study in order to ensure that the information is being presented accurately (Wadey et al., 2012). Specifically, the data and analyses have been presented to readers as themes and subthemes identified by the coding team (analyses) along with selected representative quotes (raw data). A visual diagram has been used to show the relevance of the integrated model of sport injury to athletes' responses to COVID-19, and any divergence from the model that have been identified in this study. This relationship has also been discussed in further detail for readers, to elaborate on what is shown in the diagram.



## Appendix C

### Extended Results and Discussion

The following results and discussion address Research Question 2: How have college athletes responded to the COVID-19 pandemic, and how does this compare to athletes' responses to injury? The pandemic presented a unique opportunity to compare what we know about how athletes experience injury with a situation that resulted in the same logistical outcome—an inability to compete in sport for an undetermined length of time, an uncertain future, and often being forced into a different physical routine. By exploring athletes' experiences of each of these situations, it appears that the similar outcomes of both situations resulted in comparable emotional responses, training behaviors (effort and intensity), reduced interactions with teammates, and slowed athletic development. However, in spite of the shared characteristics of the two experiences, there were also many differing responses and perspectives during the pandemic as compared to injury: more focus on external factors, inability to attribute the situation to anyone or anything specific, questioning the value of training, lack of risk-taking behaviors, less sense of control and understanding of the situation, more changes to the environment, and being physically able to participate in sport but with limited/no opportunities to do so. Similar to the aim of the integrated model of response to sport injury and rehabilitation (Wiese-Bjornstal et al., 1998), and much of sport injury research, it is valuable to understand how athletes' experiences of both injury and the COVID-19 pandemic ultimately impact their return to sport in an effort to make these processes effective and successful. This section will include the following: (a) analysis of athletes' responses to the pandemic, (b) comparisons between the athletes' responses to the pandemic and athletes' typical responses to sport injury, and (c) limitations and directions for future research.

### **Athletes' Responses to COVID-19**

Athletes described various responses—cognitive, emotional, and behavioral—that they exhibited and experienced over the course of the COVID-19 pandemic. All of these responses are provided in succinct lists in Table 5 (first column).

#### ***Cognitive Responses***

Cognitively, the athletes assessed and re-assessed the severity of the pandemic and developed particular beliefs about the need for safety protocols. In regard to the impact of the pandemic on their personal lives, the athletes expressed beliefs that the pandemic provided an opportunity to engage in other activities outside of sport, to focus on particular facets of sport training, and/or to recover from injury without the pressure of returning to sport right away. The perspective that additional free time provided opportunities—sport-related or otherwise—is one that injured athletes have reported as well (Gould et al., 1997; Tracey, 2003; Wadey et al., 2011). Injured athletes with the perspective that additional free time was a valuable opportunity have attributed it to their personalities and noted the value of this optimistic view during the rehabilitation process (Tracey, 2003). This optimistic cognitive angle seemed similarly beneficial for athletes during the pandemic who saw the value in this free time. Athletes at various stages of their collegiate careers also assessed the extent to which sport would be part of their lives in the future—from a freshman questioning how the extended eligibility could slow her progression to a starting position, to graduate students facing the question of whether or not to retire from collegiate sport. The athletes' attempts to manage their own expectations about return to play (or not), and to plan and prepare for the future, is similar to what professional athletes have done in order to ensure the best possible experience as they transition away from sport (Knights et al., 2019).

The athletes also had thoughts and perspectives about the experience of returning to sport training with their teams. Many of them expressed that although COVID-19 safety protocols altered their experiences to some extent, training and practice were generally much like they had been prior to the pandemic. Athletes also questioned and assessed their own preparedness to return to training and competition, often making comparisons to how they had felt upon returning in previous years as a gauge. Finally, as there was so much unknown about the timeline for return to sport and competition, athletes sometimes questioned the value of training and wondered if there was even any purpose to prepare themselves for competition. The fact that a clear external reason to train was desirable amongst the athletes demonstrates that even if their motivation to train was not completely externally regulated, there seemed to be higher levels of introjected regulation than integrated or intrinsic motivation (Deci & Ryan, 1985a, 1985b). This is valuable for coaches to note; when athletes are lacking motivation to train, it may be valuable to provide them with relevant reasons to engage in training.

### ***Emotional Responses***

Athletes primarily described experiencing uncomfortable emotions in relation to the pandemic, although there were a few positive emotions that commonly emerged as well. It was common for athletes to experience discomfort around the uncertainty about the future of sport schedules and their own athletic careers. Many expressed feeling anxious as a result of so much uncertainty and lack of knowledge about the state of their sports. While the pandemic was unique in its introduction of extreme unknowns for college athletes, anxiety is a well-understood and common response to uncertainty in one's life that is not exclusive to sport (Hirsh et al., 2011). Further, during mass quarantine, the athletes described feelings of boredom and loneliness as they were removed from their typical social environments and were limited in the

activities in which they could engage outside of their homes. Additionally, some athletes described feeling nervous about how they would perform upon returning to sport training and competition, as many experienced a decrease in sport training.

Despite the frequency of challenging emotions that the athletes described, they also experienced some positive emotions in response to COVID-19. Many expressed gratitude for opportunities (e.g., quality time with family, time for personal growth and development, additional time to train for sport) that they experienced as a result of the pandemic, as they felt that they would not necessarily have had the same experiences otherwise. Expressions of gratitude among athletes of various levels have been associated with greater life satisfaction, as well as sport satisfaction, team satisfaction and feelings of support (Chen, 2013; Chen & Kee, 2008; Gabana et al., 2018). Therefore, feelings of gratitude may have been beneficial for athletes during the COVID-19 pandemic as they were faced with uncertainty and pandemic-related challenges. The athletes also expressed excitement at certain times for a variety of reasons; some were excited when the pandemic began because they thought it would result in a brief respite from their sport and/or an extra week of spring break, and many expressed excitement upon returning to training and competition with their teams. While the former supports that Division I college sports are highly demanding and stressful for participants (Melendez, 2009; Pritchard & Wilson, 2005), athletes' excitement to return to play and be reunited with their teams highlights the integrated and intrinsic nature of athletes' motivation (Deci & Ryan, 1985a, 1985b). Finally, athletes experienced feelings of relief upon receiving information about the opportunity to return to sport, whether it be the extension of their athletic eligibility or the establishment of a competitive season after a long period of unknown. This relief signals the significance of athletic identity, as the athletes seemed comforted knowing that

they would be returning to sport-related activities and other important interactions with others (Brewer et al., 1993).

### ***Behavioral Responses***

Athletes also exhibited various behavioral responses to COVID-19 that deviated from their typical behaviors, or that served as coping mechanisms to manage the emotions that they experienced during the pandemic. Athletes' training-related behaviors were often modified during the pandemic as a result of limited access to training resources and being removed from their typical training environments (e.g., gyms and campus training facilities closed). For some athletes, this also led to a reduction in training time and frequency. Athletes also experienced changes in their motivation to train during the pandemic due to cognitive appraisals about the value of training and the severity of the pandemic (and how it might influence their schedules and their athletic lives). This shift in motivation seemed to influence the effort that they put into training, as well. Further, the athletes' communication with others—teammates, coaches, friends, family—was notable during the pandemic as existing dynamics changed and their interactions with others often increased, decreased, or took on different forms (e.g., from in-person to online or phone interactions, from in person to long-distance).

The activities in which athletes engaged also changed in response to the pandemic, as many began to partake in new activities to (a) cope with the challenges of the pandemic, (b) intentionally engage in personal growth and development while they had the additional free time, and/or (c) fill the free time. For instance, in order to cope with the lack of access to training equipment or facilities, athletes came up with and/or engaged in body weight workouts, reached out to their strength and conditioning coach for guidance, or sought teammates to train with them (not always successfully). To cope with reduced time engaging in their sports, athletes spent

more time with family and/or engaged in new activities that they felt would help them develop in other ways, such as reading and meditating. After the onset of the pandemic, one athlete in the current study actively searched for a therapist to provide support. When faced with boredom during the mass quarantine, athletes filled their free time by engaging in physical activity (e.g., training for their sport, engaging in other sports), playing video games, or spending time with family and friends (typically within their quarantine bubble). Similarly, injured athletes have been found to engage in activities for the same reasons as they recover and rehabilitate—sometimes they seek ways to fill the time and avoid boredom, while other times they take advantage of the additional time in an effort to develop themselves as individuals and/or athletes (Gould et al., 1997; Tracey, 2003; Wadey et al., 2011). Athletes also engaged in pandemic-specific behaviors, such as adhering to safety protocol (e.g., mask wearing, social isolation, physical distancing) during mass quarantine and when they returned to their respective campuses.

### **Comparisons Between Athletes' Responses to COVID-19 and Sport Injury**

In order to gain a thorough understanding of the similarities and differences between athletes' responses to the COVID-19 pandemic and responses to sport injury, the researchers utilized both inductive and deductive analyses. In this subsection, (a) themes are presented based on what the athletes' described when asked to compare their experiences related to COVID-19 and sport injury, and (b) athletes' common responses to the pandemic (from the current study) are compared to athletes' typical responses to sport injury (from the integrated model of sport injury; Wiese-Bjornstal et al., 1998).

*Athlete's Direct Comparisons Between Injury and COVID-19 Experiences*

Based on the responses of the nine athletes who were able to describe the similarities and differences between their experiences of sport injury and the COVID-19 pandemic, three main similarities and three main differences were identified. Each theme will be described and analyzed, along with supporting quotes. Practical considerations will also be discussed, as what is known about athletes' responses to injury and how they compare to athletes' responses to the COVID-19 pandemic may be valuable in the case of future public health emergencies. Based on what is known about population genetics, the spread of diseases, and disease mutations (including variants of COVID-19), health experts suggest that future pandemics will inevitably occur (Dulaney, 2021; Garcia de Alcañiz, López-Rodas, & Costas, 2021). Current environmental changes that lead to increased interactions between humans and animals, as well as increased density of people living in cities and other municipalities, may also facilitate a faster spread of contagious diseases than before (Dulaney, 2020; Plump, 2021). Therefore, it would be prudent for institutions, sport organizations, and leaders within college sports (including athletic directors and coaches) to prepare for the possibility of another pandemic. The following section will include recommendations for how to prepare to help collegiate athletes in the case of another pandemic or major public health emergency, considering the athletes' experiences of both injury and the COVID-19 pandemic.

**Same: Best Approach is to Adapt, Focus on “Controllables,” and Remain Positive.**

According to athletes' responses, coping effectively with the COVID-19 pandemic and coping with injury involve a very similar approach: adapting to the new situation, focusing on what you can control, and maintaining a positive outlook. Despite the inherent differences between the two situations, the athletes were conscious of the value of accepting the aspects of the situation

that they could not control while managing the aspects that they could, such as continuing to train and engaging in emotional coping strategies (e.g., remain hopeful, stay busy). When athletes have a sense of control, they are able to more easily perceive situations as challenges rather than as threats and thus respond more effectively (Blascovich & Mendes, 2000; Jones et al., 2009; Skinner & Brewer, 2004). This was true of the athletes who described the importance of focusing on what was in their control during the pandemic. One athlete noted the lessons that can be gained from both injury and the pandemic if one chooses to see the value in the experience: “Stuff like this makes you stronger and...if you make a positive out of it you can learn a lot of things from it, for sure” (Keoni, baseball). Another athlete described that his general approach to dealing with challenges was to focus on what was within his control. He stated that this approach helped him to not become overwhelmed both when injured and during the pandemic:

It was similar to COVID, because COVID was also completely out of my control...So even though...[it] often seemed, or probably it can be pretty overwhelming...um, the mindset I just grew up with, it helped me a lot to not get thrown off by either of those things. (Luka, soccer)

This perspective was common among athletes, regardless of whether they were able to consistently adapt, focus on what was within their control, and remain positive over the course of the pandemic. It seems that during the pandemic, athletes were aware that it would benefit them to accept their situation, but they did not necessarily know how to do so effectively. Acceptance, or the willingness to experience difficult thoughts, emotions, and sensations in pursuit of one's goals, has been found to be beneficial among injured athletes (e.g., pain acceptance during rehabilitation; Baranoff, Hanrahan & Connor, 2014). Acceptance is a primary tenet within



acceptance commitment therapy (ACT; Hayes et al., 1996; Hayes, Strosahl, & Wilson, 1999), which has been used effectively with injured athletes to support their general well-being through the development of greater psychological flexibility (Cecil, 2020; Mahoney & Hanrahan, 2011). Considering athletes' existing perspectives that acceptance is important both when injured and when facing the unknowns of a pandemic, it may benefit athletes in pandemic situations to receive brief ACT interventions or education sessions.

**Same: Lack of Connection to Team.** Another similarity that athletes noted between injury and COVID-19 experiences was the resulting reduction in interactions with and connections to their teams. In regard to the pandemic, every athlete experienced reduced interactions with teammates and coaches simply as a result of sports being shut down and physical distancing safety measures being put in place. However, injured athletes experienced varying degrees of this change in team dynamics depending upon how their coaches and teammates responded, or depending on logistics; for instance, some had been encouraged to attend practices where they were given tasks that made them feel separate from their teammates, while others had missed the opportunity to attend games or travel with their teams. In one example, the athlete described the similarity between missing a trip to New York with her team due to injury and being at home during quarantine:

Obviously like, not being able to travel with your team and like seeing them posting all these pictures, like they went to Broadway or stuff like that. It's like...the same thing of like, coming home and like, sitting at my house like with no friends... (Emma, soccer)

It should be noted that while a sense of disconnect from one's team was common during both injury and the COVID-19 pandemic, this experience may have had different effects on athletes'

motivation between the two situations. One athlete noted that her desire to reconnect with her team in a more traditional way after injury drove her motivation to return to play:

So like I was like...“Oh my God, like I have to get back to playing...” And I guess ‘cause, like, I was seeing everyone all the time, like my team and stuff, so I was like, “I need to...come back...” and then now, like, I didn’t see anybody. Like I was by myself and I was like, I know that like, I need to do this, but it was just harder to get going.

(Taylor, softball)

The desire that injured athletes have to engage with teammates as active, contributing members of a team once again can be influenced by beliefs that they are letting their teammates down or missing out on opportunities to practice or compete (Tracey, 2003; Wadey et al., 2012). These beliefs were not apparent amongst athletes during the pandemic, as their teammates were also not engaging in organized practice or competition. However, the lack of connection still persisted as a result of logistical changes during the pandemic. In future pandemic or mass quarantine situations, it would be valuable to help athletes connect more effectively with their teammates, particularly when cohesion is lacking. One way of improving athletes’ connections to teammates might be the use of support groups, which have been found to effectively improve mood states among injured athletes (Clement, Shannon, & Connole, 2011; Horton, 2002). Due to the physical distance from others during mass quarantine, athletes may be assigned to smaller groups within the team that meet online (via video communication) regularly to engage in semi-structured or unstructured conversation. There is good support for the use of online support groups to improve the mental health and well-being of participants, as it allows for communication across long distances, is accessible, allows for controlled participation, and enhances social interaction and support (Beaudoin & Tao, 2007; Heft et al., 2005; Rohrs-Cordes

& Paule-Koba, 2018). Coaches can aid in the establishment of these athlete support groups, and whether or not they participate in them directly, should also develop a plan for themselves and their staff to check in with athletes semi-regularly. When injured athletes perceive that they are receiving valuable support from their coaches, it contributes to their well-being as they move through the injury and rehabilitation process (Corbillon, Crossman, & Jamieson, 2008). Given the similarities between athletes' injury and pandemic experiences in regard to connections with their teams, it seems that increasing athletes' perceived social support during a pandemic when they are isolated from most or all of their teammates would be beneficial.

**Same: Slows Athletic Development.** Both injury and the COVID-19 pandemic appeared to hinder athletes' opportunities to develop athletically. With all sport activity being put on pause and athletes losing access to training facilities and resources during the pandemic, their physical development often slowed in at least one way (e.g., strength and conditioning, sport-specific training). This was also somewhat affected by reduced motivation to train and maintain their fitness during the pandemic, which changed along with athletes' perceptions of reduced control and competence (Ryan & Deci, 1985). This decelerated physical development is true of athletes who have experienced injury as well—although during the pandemic, college athletes largely experienced this deceleration during the same time period rather than independently, as happens during an injury. Yet, this deceleration still occurs as injured athletes must rehabilitate and often cannot maintain the same physical training that they had prior to sustaining an injury:

It's not like you're like, being pushed and stuff like that in the same way, so I feel like being at home by myself, it was like that similar like, you're not like improving yourself

as much as you could, like being injured... Your abilities are lacking because you're hurt or like you're not able to do stuff for as long... (Emma, soccer)

Injured athletes are more likely to adhere to rehabilitation programs when they believe there is a possibility of re-injury, when they feel they are capable of successfully completing the rehabilitation program, and when they can see the long-term benefits of rehabilitation (Brewer et al., 2003; Fisher & Hoisington, 1993; Taylor & May, 1996). Coaches and support staff (e.g. athletic trainers) can enhance athletes' adherence to rehabilitation by creating individualized programs, educating athletes on the situation and the rehabilitation program, communicating with and actively listening to athletes, and using short-term goals (Christakou & Lavalley, 2009). As athletes' engagement in training (e.g., sport-specific, strength and conditioning) often slowed and motivation declined during the pandemic, similar approaches could be taken to mitigate the deceleration of athletic development during future pandemics. For instance, sport coaches and strength and conditioning coaches can develop training programs specific to each athlete based on their positions, abilities, and access to equipment. As mentioned previously, coaches can also communicate semi-regularly with their athletes, even to briefly check in and gauge how they are coping—in general and in relation to training. They can also aid athletes in establishing short-term training goals, as setting and reaching these goals would provide athletes with more information about their competency and development as compared to waiting for the day that they will return to sport. Ultimately, the similarities between athletes' experiences of injury and the COVID-19 pandemic may allow stakeholders in college sports to adapt modalities and approaches that have been beneficial for injured athletes, and prepare to support athletes if future pandemics occur that impact sport participation.

**Different: Sense of Control and Understanding of Situation.** There were also distinct differences in athletes' experiences with injury and the COVID-19 pandemic. A commonly noted difference was a perceived lack of control and poorer understanding of the situation during the pandemic as compared to injury. Athletes described that during an injury, they are in control of their training and rehabilitation, thus in many ways they play a direct role in the speed in which they return to play. Athletes did not have the same sense of control over their situations during the pandemic, which seemed to have an impact on their motivation as their training decisions and efforts were not determinants in how soon they would return to practice or competition with their teams:

I feel like maybe just like with COVID, it's like... I feel like there's so many more things that like I have like absolutely no control of, umm, just like outside of sport and things like that. Whereas with just an injury, it's more so like you don't have control of how your body heals or like really necessarily... Like how soon you're gonna be back to 100 percent and stuff, but you can do everything you can to get there as fast as you can safely... Whereas with COVID it's, you can wear your mask, you can do everything yourself to really like get back to normal, but it doesn't make a difference at the end of the day if cases are still high and other people aren't doing that, and stuff like that.

(Devon, football)

As reflected in Ryan and Deci's self-determination theory (1985), a greater sense of control or autonomy over one's situation leads to greater intrinsic motivation to engage in relevant behaviors. Amongst athletes, perceptions of autonomy enhance intrinsic motivation and intentions to continue to participate in sport (Amorose & Anderson-Butcher, 2007; Hollembek & Amorose, 2005; Keshtidar & Behzadnia, 2017). During the period of mass quarantine, this

held true as athletes' lack of control over their return to sport due to the pandemic seemed to impact their drive to engage in training (though, did not impact their desire to engage in safety precautions). This is further reason to implement ACT interventions and encourage acceptance amongst athletes in future situations (pandemic or otherwise) in which they have limited control over their abilities to engage in sport (Hayes et al., 1996; Hayes et al., 1999).

The athletes also explained that when dealing with an injury, they had a better understanding of what to expect and generally what the progression from injury to return to play would look like (whether they had experienced prior injury or not) as compared to the pandemic. Conversely, during the pandemic there were many unknown factors regarding sport training and return to play, so athletes often felt "in the dark" with limited information. The following athlete described COVID-19 as an invisible "monster" that led him to adopt a different mindset than he had when injured:

...it was a totally different mindset, even though I'm way more mature and more controlling of my situation, but that me was motivated to, you know, I guess, come back full throttle. Rather than this [current] me being affected by COVID—it's, it's a monster out there that we can't see, so I don't care right now, like I'm just gonna stay at home, where the monster can't come in my house unless I want him to. (Devon, football)

The lack of clarity surrounding the COVID-19 pandemic and virus made it more challenging for athletes to effectively approach their sport training with strong motivation. While a global health emergency is difficult for anyone to predict or have information about, it is still valuable for administrators, coaches, and support staff to stay in contact with athletes and provide them with as much information as possible about the situation at any given time. Injured athletes find value in receiving informational support from coaches, particularly as they progress through

rehabilitation, as it contributes to their well-being (Clement & Shannon, 2011). If future pandemics occur that isolate college athletes from their teams and limit their interactions, it would be valuable for coaches and athletic administrators to provide any credible and relevant information to athletes so they do not feel as though they are “in the dark” and have some clarity about the situation. In providing athletes’ with more information, coaches and administrators may consider sharing (a) their goals and expectations for the athletes and teams during the pandemic, (b) what they are trying to accomplish in their roles as coaches or as an administration during the pandemic, and (c) their limitations and any information that is unknown to them.

**Different: Changes to Environment and Resources.** The athletes also described that during an injury, they had not experienced major changes to their environments and access to resources like they did during the COVID-19 pandemic. During mass quarantine, athletes often did not have access to training facilities (school-owned facilities or otherwise), equipment, support staff, or coaches. This is considerably different than when athletes are injured and cannot participate in sport temporarily, as they still have access to facilities and resources when injured: “The difference is too, just like I had so much access... Like although I was sick, umm, I had access to literally everything that I could ever need” (Megan, volleyball). While little can be done to tangibly address athletes’ reduced access to facilities and equipment during a pandemic, the aforementioned development of individualized training programs based on what athletes have access to during isolation may ease the challenge of this limited access.

The physical distancing that was required during the pandemic also led to changes in athletes’ environments that they typically did not experience during an injury, when they were generally able to function in their usual spaces despite any physical ailments:

The difference, like, that's popping out like right now to me is that back then, like, when I was hurt, like I was still going to, like, games and practices and stuff, so, like, I was still involved...with everyone, but then with this, like we went home and, like, we were isolated, so...There's not that interaction and stuff. (Taylor, softball)

Interactions between athletes and their teammates, coaches, and support staff are critical for athletes, particularly because social support from this community has such an impact on their psychological health and well-being (DeFreese & Smith, 2014). Having access to various athletic resources within a college athletics environment is beneficial for athletes who are rehabilitating or recovering from an injury; however, this was not an option for athletes during the COVID-19 pandemic. In the future, if athletes are isolated from their teams and coaches due to public health emergency, increased communication through support groups and semi-regular contact from coaches would be beneficial in helping athletes feel connected.

**Different: Fitness and Opportunity to Play.** Lastly, athletes' experiences of injury often involve a loss of fitness as their bodies adapt and recover, while their experiences during the COVID-19 pandemic often involved being relatively fit but simply not allowed to compete due to COVID-19 restrictions. Each of these unique experiences can be challenging for athletes psychologically and emotionally. However, the COVID-19 pandemic presented the challenge of possibly being in good shape prior to or during the sport season, only to put one's athletic career on pause indefinitely—a frustrating situation. One athlete described that to be fit but not able to use it in an athletic setting was far worse than the injury experience:

I think COVID's worse because you're healthy... but the injury, you know what caused it. You know what's going on... As much as it sucks, you can get better. You know how to, like... following your trainer, your doctor, you can get better. With COVID, you have



no, you have no, really, say in this. And you're healthy too, like you can be in really good shape, and be ready to go, and it's just... That's the only difference in it. You kind of feel like... With an injury, you can rehab it and get back into it, possibly. With this, you're... You're waiting. It's a waiting game. (Toby, cross country)

Another athlete maintained the view that an injury is worse than the COVID-19 pandemic because it can lead to a loss of fitness, which he felt was more frustrating than being fit but not being able to train or compete: "Obviously you'd lose your, umm, your fitness levels that you have now. So I think if like, I were to be injured, it'd be worse than what it is now" (Bryce, soccer). While COVID-19 prevented athletes from being able to engage in their sport regardless of preparation or fitness, and injury impacted athletes' fitness and preparation, the athletes had differing perspectives on which experience was more difficult. Either way, it seems that athletes value being in shape but also value being in peak physical condition at a time when it matters for competition. Once again, the difficulty of waiting for an opportunity to compete may be mitigated by setting short-term goals during a pandemic situation. In order to help athletes maintain motivation to train despite the various unknowns that come with a pandemic, coaches should consider emphasizing the positive impact of regular physical activity on physical, mental, and emotional well-being (Fox, 1999; Hammami, Harrabi, Mohr, & Krusturup, 2020; Snyder et al., 2010). Even when athletes are unsure when they will be training with their teams or competing again, maintaining good physical health during a pandemic can be driven by other benefits and outcomes as long as the athletes are aware of them.

To conclude, athletes described similarities and differences in their responses to injury and the COVID-19 pandemic. These comparisons are valuable for college coaches and other athletics staff to consider, as they may need to prepare to support college athletes in future health

emergencies—quickly and with little notice. The practical recommendations that have been made in this section are available as a list in Table 6 (found in Appendix G).

### ***Comparison of Athletes' Responses to COVID-19 and the Integrated Model of Sport Injury***

Similarities and differences were also identified between athletes' responses to the COVID-19 pandemic and typical responses to sport injury as provided in the integrated model of response to sport injury. Most of these differences were in the areas of cognitive appraisal and behavioral responses, while athletes' emotional responses to each situation were very similar. Table 5 includes (a) athletes' responses to the COVID-19 pandemic based on interviews in this study, (b) athletes' typical responses to injury according to the integrated model of response to sport injury, and (c) notable differences between the two experiences, as identified by the research team in this study. It is important to note that the integrated model of sport injury serves as a useful guide to understand athletes' general injury experiences, but each injury experience is highly personal, variable, and complex. The same is true of athletes' experiences of the COVID-19 pandemic, as this experience was also personal, complex, and changed over the course of many months. Therefore, this section provides a simple, exploratory comparison of athletes' general responses to the pandemic and their typical responses to sport injury.

**Cognitive Responses.** Cognitively, it seemed that athletes during the COVID-19 pandemic focused on the impact of factors outside of themselves more than is typical of injured athletes. While an injury is a more personal experience and often leads athletes to focus on themselves and their recovery, the pandemic presented challenges that were outside of individuals' control and impacted everyone in a similar way. Therefore, in order to gauge progress toward return to sport during the pandemic, it required athletes to regularly assess external factors (e.g., the severity of the pandemic). Athletes also expressed thoughts about the

pandemic on a global level, developing and expressing opinions about the response of particular organizations and society in general (e.g., adherence to safety protocol). This is unique because, in contrast to injury, the entire world was experiencing and impacted by the pandemic.

Additionally, while athletes who become injured can often attribute the injury to a particular cause, person, or event, athletes struggled to find anything to “blame” for their pandemic experiences since it was simply a global disaster. Athletes also questioned the value of their training during COVID-19 at times when their practice and competition schedules were unclear or undetermined, and dependent upon the severity of the pandemic—a cognitive response that is not common during an athletic injury as athletes who are rehabilitating, or training have something to return to once they have recovered. Finally, athletes often maintained the perspective that the pandemic afforded them opportunities that they would not have typically had without the forced shutdown of sport (e.g., the opportunity to engage in new activities, engage in personal development, rehabilitate without pressure to return right away). It has been noted that athletes who have strong control over their own thoughts can also experience injury as an opportunity for personal development (Roy-Davis et al., 2017); however, the perspective of free time as an opportunity seemed more common among athletes during the pandemic.

**Emotional Responses.** Although many of the athletes' cognitive appraisals during the pandemic were notably different than typical injury responses, the emotional responses to each situation are very similar. The integrated model of response to sport injury (Wiese-Bjornstal et al., 1998) highlights the following challenging emotional responses: fear of unknown, tension, anger, depression, frustration, boredom, and grief. Athletes whose sports were impacted by the COVID-19 pandemic also expressed these emotions to varying degrees. Similar to when athletes experience an injury, the athletes impacted by COVID-19 experienced distinct events and

phases, resulting in emotions shifting and changing over time. Upon first learning that their sport seasons were being cancelled due to the pandemic, athletes expressed emotions similar to those that arise at the onset of injury such as fear, anger, confusion, denial, and sometimes a sense of relief (Brock & Kleiber, 1994; Clement et al., 2015; Mainwaring, 1999; Peterson, 2009; Tracey, 2003; Wadey et al., 2012). Among athletes who experienced changes due to the pandemic, emotional reactions were similar to those of athletes receiving a diagnosis: as they came to better understand the magnitude and long-term impact that the pandemic would have on their sport participation, they experienced difficult emotions such as uncertainty and anxiety about sport-related unknowns (e.g., when they would return to competition, whether or not they would play again at all due to eligibility; Clement et al., 2015; Mainwaring, 1999). During mass quarantine, the athletes experienced emotions similar to those that injured athletes experience during the rehabilitation phase, such as boredom, isolation, depression, anxiety, and sometimes optimism (Clement et al., 2015; Granito, 2002; Grindstaff et al., 2010; Mainwaring, 1999; Podlog et al., 2015; Tracey, 2003; Wadey et al., 2012). Athletes in both situations have exhibited a positive emotional response as well; a positive attitude and excitement about returning to play were common among athletes during the pandemic and are also typical responses during injury recovery. Athletes' emotional responses to the pandemic and to injury seemed to be similar due to that fact that in both situations, they respond to an immediate, unexpected event, followed by a stretch of relative isolation, uncertainty, and altered routines.

The one notable difference in emotional responses was the gratitude that athletes expressed for the opportunities that they were afforded due to the pandemic. While it has been hypothesized that positive reappraisal of one's injury is likely to result in positive emotions such as gratitude (Roy-Davis et al., 2017), a sense of gratitude seemed more common among athletes

during the pandemic just as it was more common to view the pandemic as an opportunity.

Ultimately, the emotional responses that athletes had during the pandemic parallel the emotional responses that are common when facing sport injury.

**Behavioral Responses.** In many ways, athletes' behavioral responses to the pandemic were considerably different than their responses to injury. First, athletes had less structured programs than they typically would if they were injured and going through rehabilitation or training for return to sport. As a result, there was less to adhere to (or, not adhere to) in comparison to when one is injured, which may have played a role in athletes' altered training experiences during the pandemic such as major reductions in training and fluctuations in motivation. It is well known that it is not simply the act of training that leads to improvements, but "the magnitude of the individual effort and systematic structuring of the training stimulus" (Kraemer & Ratamess, 2004). Goals are built into strength and conditioning programs, sport-specific training, and rehabilitation programs; without the typical programming and access to resources, athletes are likely to experience reduced sense of ownership and have fewer tools with which to gauge their competence (Ryan & Deci, 2000; Sheppard & Triplett, 2015; Tod & McGuigan, 2001).

Another notable difference in behavioral responses to the pandemic as compared to sport injury was the lack of risk-taking behaviors taken by athletes during the pandemic. While injured athletes may engage in behaviors that threaten their health or progress—pushing beyond their physical limits during rehabilitation, competing before they are completely rehabilitated, engaging in non-sport activities that may lead to re-injury—this was not the case among athletes during the pandemic. Overwhelmingly, the athletes in the current study chose to adhere to COVID-19 safety protocols rather than deviate from them (the latter can be considered a risk-

taking behavior, in this case). Outside of COVID-19 safety protocols, athletes did not describe engaging in potentially hazardous physical behaviors—sport-related or in general.

Athletes' social behaviors seemed to differ during the pandemic in that they were open to support when it was not always present. For instance, multiple athletes had hoped for more interactions with and responses from teammates during quarantine and expressed disappointment when they did not receive that communication. However, athletes' typical social responses during injury according to the integrated model involve use or disuse of social support that is present and available to them. While athletes who experience injury do not always perceive that they are receiving social support (or, particular forms of social support), it is plausible that during the pandemic athletes were truly not receiving as much attention and care as they typically do when injured because everyone was experiencing the same challenging event at once. During epidemics, community-wide panic and grief due to shared loss of lives are common, thus there are more individuals who require support (Ramalingaswami, 2001; van Bortel et al., 2016). Therefore, the athletes likely did not stand out as needing support as much as they might stand out or be considered when injured.

Finally, athletes did not seem to malingering during the pandemic as sometimes happens when experiencing an injury. Due to sport being cancelled for a period of time, the athletes in the current study did not have any events or practices that they could have even attempted to avoid for many months. Upon returning to train with their teams, all athletes seemed to do so willingly and without attempting to exaggerate any physical, psychological, or emotional ailments. Although the COVID-19 pandemic incited similar emotions as those that athletes experience during injury, the psychological and behavioral responses were particular to the events and experiences themselves. Ultimately, sustaining a sport injury leads to a complex and

nuanced experience for athletes, and the pandemic has also resulted in very complex experiences. While it is valuable to explore the similarities and differences between athletes' responses to the pandemic and to the integrated model of sport injury, the complexity of each experience makes it difficult to draw any meaningful conclusions at this time.

### **Limitations & Directions for Future Research**

This study presented a few limitations, which highlight opportunities for future research. First, interviews with the athletes were conducted anywhere from seven to nine months from the start of the pandemic and only captured athletes' phenomenological experiences of this time period. As a result, there was no exploration of the relationship between athletes' responses to the pandemic and their ultimate experience of and performance upon returning to sport, as these athletes had already returned to their sports (either in season or out of season). In order to identify whether these relationships exist, future research should explore how athletes' various personal factors, situational factors, and responses to the pandemic influenced their return to sport and their performance during their first season after the pandemic. Another limitation is that the current study did not take into consideration the impact of prior sport injury experience on athletes' responses to the COVID-19 pandemic. Although nine of the eleven participants described prior injury experience that prevented them from competing in sport for a period of time, the researcher did not explore the direct relationship between the athletes' injury experiences and their pandemic experiences. Thus, future researchers should consider asking athletes to specifically describe if and how they perceive their previous injury experiences influenced their response during the pandemic. Finally, the current study captures perspectives from a broad range of collegiate athletes rather than more nuanced experiences of specific groups of athletes. While the information from this study is broadly generalizable to collegiate athletes,

it would be beneficial to develop an understanding of the experiences of more homogenous groups of athletes regarding the relationship between their responses to COVID-19 and injury. Future researchers might consider conducting similar studies to this one while focusing specifically on athletes of particular genders, sports, institutions, and years of college athletics, possibly even searching for comparisons between groups in order to determine if those factors play any role in the athletes' responses.

### **Conclusion**

In the current qualitative study, Division I college athletes described a range of cognitions, emotions, and behaviors that they exhibited in response to the COVID-19 pandemic. Their responses to and experiences of the COVID-19 pandemic and sport injury were both similar and different to one another. The distinctions between the two experiences seemed to lead to many cognitive and behavioral differences, while athletes' emotional responses to the pandemic were very similar to those expressed by injured athletes. Athletes noted that in both situations, (a) the best way to cope was to adapt and focus on what was within their control, (b) there was a lack of traditional connection to their teams, and (c) their athletic development was hindered. However, when compared to injury, during the pandemic the athletes experienced (a) less sense of control and understanding, (b) more changes to their environments and available resources, and (c) greater fitness but less opportunity to compete. By considering these similarities and differences in athletes' responses and experiences, we were able to identify strategies to better support Division I athletes in the case that a similar pandemic situation arises. Moving forward, researchers should aim to understand the long-term impact of the pandemic on college athletes.



## Appendix D

### Brief Recruitment Message

Hello,

I am a doctoral student in the Sport, Exercise, & Performance Psychology program at West Virginia University. I am conducting a research study to understand how NCAA Division I athletes have been impacted by the COVID-19 pandemic, particularly in relation to sport participation. Specifically, I am looking to interview Division I athletes whose collegiate athletic careers have been altered due to COVID-19 and the resulting changes. The interview will be conducted through Zoom, and is expected to last 30-45 minutes. Participation in the interview and any identifying information about the athlete will remain confidential.

If you meet the criteria and are willing to participate, please call or text me at (619) 392-6631, or email me at [cj0011@mix.wvu.edu](mailto:cj0011@mix.wvu.edu). If you know any Division I athletes whose athletic careers have been impacted by COVID-19, please consider passing this message along to them. A more in-depth explanation, as well as the informed consent form, can be found [by following this link](#).

Thank you for your consideration!

Best,

Carra Johnson, M.A., M.S.  
(619) 392-6631  
[cj0011@mix.wvu.edu](mailto:cj0011@mix.wvu.edu)

## Appendix E

### Alignment of Research Questions and Interview Questions

Research Question 1: How has the COVID-19 pandemic affected college athletes' lives relative to their sport participation?

Can you talk about how the COVID-19 pandemic has affected your life relative to your sports participation?

[PROBE] Thank you. You said that COVID impacted your life by [restate their experience]—can you describe that a little bit more in depth?

[PROBE] How has this/these experiences affected you?

Research Question 2: How have college athletes responded to the COVID-19 pandemic, and how does this compare to athletes' responses to injury?

Can you talk about how you have responded to this experience/these experiences?

[PROBE] Think about the thoughts and emotions that you've experienced since the start of COVID-19. Describe any thoughts or emotions that stand out to you.

[PROBE] Think about your behaviors since the start of COVID-19. Describe any behaviors that stand out to you.

Have you ever experienced an injury that kept you from participating in sport for a period of time?

[IF "YES" TO PREVIOUS QUESTION] Describe how your experience as an athlete during COVID-19 compares to your experience of being injured and unable to participate. Consider any similarities and/or differences.

## Appendix F

### Semi-Structured Interview Guide

#### Introduction

Thank you for agreeing to participate in this interview. As you know, I'm interested in what your experience has been as a college athlete during the COVID-19 pandemic. My goal during this interview is to understand how you feel you've been impacted by the pandemic—particularly as it relates to athletics—and how you have responded to it.

Before we get started, I want to remind you that I will record the audio of this interview (no video). The recordings and transcripts of the conversation are confidential, as described in the consent form. Your name and all identifying information will be completely removed from the transcripts. I also want to remind you that everything you say during this interview is voluntary, anonymous, and confidential. You can choose not to answer any question or to end the discussion at any point. Do you have any questions before we begin?

[BEGIN RECORDING]

Once again, can you please confirm that you have consented to participate in this study?

#### Primary Questions

Can you talk about how the COVID-19 pandemic has affected your life relative to your sports participation?

[PROBE] Thank you. You said that COVID impacted your life by [restate their experience]—can you describe that a little bit more in depth?

[PROBE] How has this/these experiences affected you?

Can you talk about how you have responded to this experience/these experiences?

[PROBE] Think about the thoughts and emotions that you've experienced since the start of COVID-19. Describe any thoughts or emotions that stand out to you.

[PROBE] Think about your behaviors since the start of COVID-19. Describe any behaviors that stand out to you.

Have you ever experienced an injury that kept you from participating in sport for a period of time?

[IF "YES" TO PREVIOUS QUESTION] Describe how your experience as an athlete during COVID-19 compares to your experience of being injured and unable to participate. Consider any similarities and/or differences.

#### Thank You

Thank you so much for participating in this interview. I really appreciate your time and effort. I will send you a copy of the transcript and the findings from the study so you have the

opportunity to make any comments or changes—although this is completely optional. Until then, please feel free to contact me with any questions about this interview or the study. Thanks again.

## Appendix G

## Tables and Figures

Table 1

*Participant Demographics*

<b>Participant (Pseudonym)</b>	<b>Gender</b>	<b>Sport</b>	<b>Age</b>	<b>Race</b>	<b>Academic standing (2020-2021)</b>
Bryce	Male	Soccer	22	White	Senior
Daphne	Female	Soccer	20	Asian	Junior
Luka	Male	Soccer	22	White	Senior
Toby	Male	Cross Country	24	Hispanic	Master's
Devon	Male	Football	21	Black	Junior
Paris	Female	Track	22	Black	Master's
Megan	Female	Volleyball	21	White	Master's
Taylor	Female	Softball	20	White	Junior
Sophia	Female	Softball	19	White	Freshman
Emma	Female	Soccer	22	White	Senior
Keoni	Male	Baseball	20	Hispanic	Junior

**Table 2**

*Suggestions for coaches and administrators based on college athletes' experiences during the COVID-19 pandemic*

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<p>Help athletes develop a sense of personal control and connection when they are training in their typical training environments and away from them (e.g., holiday breaks)</p> <ul style="list-style-type: none"> <li>• <i>Provide athletes with various training tasks/activities that they can select from (e.g., select from a set of drills or exercises)</i></li> <li>• <i>Solicit athletes' ideas and incorporate them into training</i></li> <li>• <i>Praise athletes for engaging in positive behaviors autonomously</i></li> <li>• <i>Provide rationales for coaching decisions</i></li> <li>• <i>Create thoughtfully-structured reward systems</i></li> </ul>
<hr/> <p>Express concern about athletes' well-being, regardless of how it relates to their athletic success in that moment</p> <ul style="list-style-type: none"> <li>• <i>Listen to athletes without judgement and without giving advice (listening support)</i></li> <li>• <i>Provide comfort and care for athletes (emotional support)</i></li> <li>• <i>Confirm the athletes' perspectives of the situation, acknowledge that you can see it from their perspective (reality-confirmation support)</i></li> <li>• <i>Acknowledge the athletes' efforts (task-appreciation support)</i></li> </ul>
<hr/> <p>Support athletes in finding balance in their lives, rather than overidentifying with their athletic identities</p> <ul style="list-style-type: none"> <li>• <i>Provide life skills classes that include mentorship from older athletes, focus on stress management, and focus on transition out of college</i></li> <li>• <i>Reduce training time to encourage engagement in other endeavors</i></li> <li>• <i>Continually encourage work-life balance</i></li> </ul>
<hr/> <p>Maintain awareness of the complex career-oriented decisions that athletes are facing as a result of additional year of eligibility</p> <ul style="list-style-type: none"> <li>• <i>Provide career counseling services in which athletes are encouraged to explore new skills and interests</i></li> <li>• <i>Provide career counseling services in which athletes are prompted to create a timeline of their lives and develop a strategy for life and career in future</i></li> </ul> <hr/>

**Table 3***Institution Characteristics*

<b>Institutions</b>	<b>Athletic Conference</b>	<b>Region of USA</b>	<b>Enrollment (Total)</b>
2	West Coast Conference (WCC)	West	6,500
		West	33,500
2	Mountain West Conference (MW)	West	13,000
		West	34,000
2	Big 12 Conference (Big 12)	Midwest	22,000
		Southeast	30,000
2	Conference USA (C-USA)	Southeast	55,000
		Southeast	26,000
1	Southwest Athletic Conference (SWAC)	Southwest	10,500
1	Atlantic Coast Conference (ACC)	Southeast	34,000
1	Sun Belt Conference (SBC)	Southeast	18,500

**Table 4***Thematic Analysis*

<b>Phase (Braun &amp; Clarke, 2006)</b>	<b>Step</b>	<b>Actions</b>	<b>Members Involved</b>	<b>Independent or Collaborative</b>
<b>1</b> Familiarize with data	1	<ul style="list-style-type: none"> <li>● Listened to interviews</li> <li>● Edited transcripts</li> <li>● Recorded memos</li> </ul>	Primary researcher	Independent
	2	<ul style="list-style-type: none"> <li>● Read transcripts</li> <li>● Recorded memos</li> </ul>	All	Independent
<b>2</b> Generate initial codes	3	<ul style="list-style-type: none"> <li>● Developed initial codes (in vivo, emotion, process)</li> <li>● Recorded memos</li> </ul>	All	Independent
	4	<ul style="list-style-type: none"> <li>● Developed an agreed-upon list of codes</li> </ul>	All	Collaborative
<b>3</b> Search for themes	5	<ul style="list-style-type: none"> <li>● Re-read coded excerpts with list of codes to identify potential themes</li> <li>● Recorded memos</li> </ul>	All	Independent
	6	<ul style="list-style-type: none"> <li>● Categorized codes and identified emerging themes</li> <li>● Created visual to represent emerging themes</li> </ul>	All	Collaborative
<b>4</b> Review themes	7	<ul style="list-style-type: none"> <li>● Reviewed coded data excerpts that fell into each theme</li> <li>● Recorded memos</li> </ul>	All	Independent
	8	<ul style="list-style-type: none"> <li>● Created thematic map, adjusting themes and coded excerpts</li> </ul>	All	Collaborative
	9	<ul style="list-style-type: none"> <li>● Re-read coded excerpts to determine whether themes work</li> <li>● Recorded memos</li> </ul>	All	Independent
	10	<ul style="list-style-type: none"> <li>● Reviewed and refined thematic map</li> </ul>	All	Collaborative
<b>5</b>	11	<ul style="list-style-type: none"> <li>● Named, defined, and refined themes</li> <li>● Identified sub-themes</li> </ul>	All	Collaborative



Define and name themes	12	● Wrote detailed analysis of each theme	Primary researcher	
	13	● Finalized themes, thematic map, and written analysis	All	Collaborative
<b>6</b> Produce report	14	● Wrote final report in order to tell story of the data	Primary researcher	

**Table 5***Athletes' Responses to COVID-19 and Comparison to Responses to Injury*

<b>Cognitive Appraisal</b>		
<b>COVID-19</b>	<b>Injury</b>	<b>Notable Differences During COVID-19</b>
Pandemic: Severity, need for protocol	Goal adjustment	More focus on and appraisal of external factors that they could not control (future unknowns, return to sport timeline)
Opportunity: Engagement in other things, additional time to train or recover	Rate of perceived recovery	Thoughts about the global situation and societal/organizational response (e.g., safety protocol)
Assessing extent that sport will be part of future	Self-perceptions	Finding someone or something to attribute it to was challenging if not impossible, rather than injury that can be attributed to self or others
Return to sport: Different but not that different, questioning preparedness	Belief and attributions	Questioning value of training
Value of training	Sense of loss or relief	Seen as an opportunity to focus on self, new activities, training, rehab without pressure to return
Cognitive coping	Cognitive coping	
<b>Emotional Response</b>		
<b>COVID-19</b>	<b>Injury</b>	<b>Notable Differences During COVID-19</b>
Uncomfortable: Uncertainty about future, anxiety about sport-related unknowns, boredom, loneliness, nervousness	Fear of unknown	Gratitude for the opportunities it gave them
	Tension, anger, depression	
	Frustration, boredom	
Positive: Gratitude, excitement, relief	Positive attitude/outlook	
	Grief	
Emotional coping	Emotional coping	
<b>Behavioral Response</b>		
<b>COVID-19</b>	<b>Injury</b>	<b>Notable Differences During COVID-19</b>
Training: Modifications, effort/motivation	Adherence to rehabilitation	Less structured plans to adhere to (or not) compared to injury

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Communication with others	Use of PET strategies	Lack of risk taking behaviors
Activities: Engagement in new activities, less engagement in usual activities, different engagement with academics	Use/disuse of social support	Open to support or desired support when it was not present
	Risk taking behaviors	No malingering
	Effort and intensity	
	Malingering	
Adherence to protocol: CDC/local guidelines, adhered to athletics protocol	Behavioral coping	
Behavioral coping		

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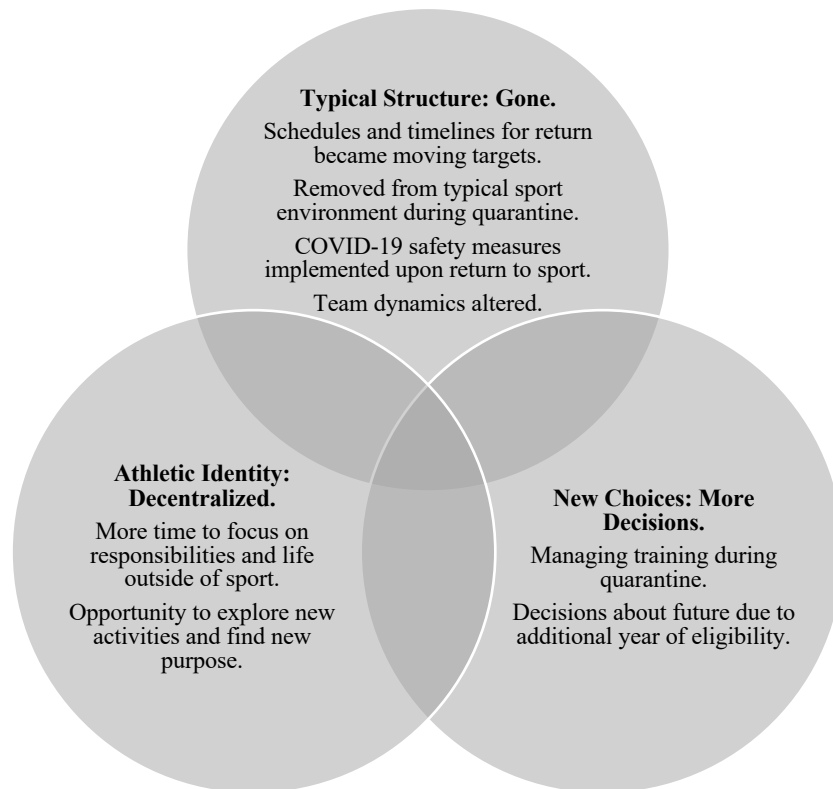
**Table 6**

*Suggested approaches and techniques for coaches, support staff, and administrators to implement in support of athletes in pandemic situations*

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Provide athletes with brief acceptance commitment therapy (ACT) interventions, in which they receive education about acceptance during challenging situations
Develop support groups within teams, to allow athletes to engage in structured or semi-structured interactions via online platforms
Develop a plan to communicate with athletes semi-regularly, in order to provide social support and an outlet for athletes to discuss how they are doing in general and in relation to sport training <ul style="list-style-type: none"> <li>• <i>Listen to athletes without judgement and without giving advice (listening support)</i></li> <li>• <i>Provide comfort and care for athletes (emotional support)</i></li> </ul>
Create individualized training programs (sport-specific training, and strength and conditioning) for athletes when they are isolated (consider athletes' position, abilities, and access to equipment)
Help athletes to establish short-term training goals during isolation from team and coaches, when return to sport is unclear
Provide any credible and relevant information about the situation to athletes, to allow them as much clarity and knowledge about the given situation as possible <ul style="list-style-type: none"> <li>• <i>Share goals and expectations, what they are aiming to accomplish as coaches and/or administration, limitations and unknowns</i></li> </ul>
Emphasize the positive impact of regular physical activity on physical, mental, and emotional well-being to encourage continual physical activity

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**Figure 1***Thematic Map of Athletes' Experiences of COVID-19 Pandemic*

## Appendix H

### Reflexive Journal

October 21, 2020 (Chula Vista, CA)

Yesterday, I conducted a pilot interview—is it the first of multiple? Can one have multiple pilot interviews? Really should have/need to do more research on pilot interviews, apparently. I'm so glad to have finally made some moves and talked to an athlete—feels good to get the ball rolling—but I didn't feel great about the interview. Not during, and not after. I don't think the questions capture what I would like them to. But, what exactly do I want them to capture? I wanted to be so present during the interview, but I know I wasn't fully because I was already thinking ahead:

Am I going to keep these questions?

I need to change these questions. They need to be more specific. But, then is it in line with my philosophy and hermeneutic approach?

What is the point of this research?

What is my goal? Am I doing research just for the sake of research?

And that last thought is my biggest fear. I don't want this to be for nothing (I know it's all in an effort to complete this degree, but that isn't satisfying enough for me. I need a bigger “why.”) And when I think back to my purpose statement, it is in fact that I want to *capture athletes' experiences of COVID-19*. And, I did that yesterday. In their words, from their perspective. As part of the conversation that we co-created (and, I felt so awkward and self-critical at so many points! Gah). But, some part of me wants something more than that. I want to feel like I'm working toward a purpose, and during the interview yesterday, started questioning everything. The purpose of my study. The value. The qualitative approach. The questions.

So, the questions.

My **first question** asks that they describe how COVID-19 has impacted their lives relative to sport participation. This led to the athlete describing the landscape—what the team dynamics were like, the social distancing/quarantine requirements, describing their season being moved/adjusted. AKA, all things that could be identified without conducting an interview. Much of this information can be found on the NCAA website and through news stories. Things that the world already knows, essentially. So, I immediately questioned that question (meta) because it felt sort of useless and impersonal. **PROS:** It does capture what the athlete finds salient. Still captures their perspective, and highlights the aspects that stand out to them based on what they decide to bring up. It also acts as an intro question in a way, as it allows athlete to refresh on the situation by stating it out loud (since at this point, they are simply living it day to day and it can be hard to zoom out and think about life without zooming out first). **CONS:** Does not necessarily effectively direct athletes to discuss their *personal* experiences, may lead to discussion of the general situation. Potentially feels less personal (but,

is that just my interpretation? And, possible that others will discuss it differently—like, from a more personal angle—which would also be interesting to note?).

My **second question** asks how the athlete has responded to “this experience”—the one they described in the first question. I guess maybe the first question is also valuable in that sense, since it provides a basis for the next. I then follow with two probes (and, I did use both yesterday) in which I ask them to describe (1) thoughts and emotions and (2) behaviors that stood out to them. Well, I think it flowed decently well in the interview yesterday, but made me realize that **it would be better to simply ask the probes as the “primary” questions here rather than starting with “Can you talk about how you have responded to this experience/these experiences?” and then after they answer that, following with probes that may lead them to have to repeat themselves.** It would also keep the interviews a bit more uniform, as some athletes may provide a lot of thoughts/emotions/behaviors in response to the “main” question while others may need the probes in order to go deeper.

Also, I wonder if I should refer more to the timeline of COVID-19. Because, they’ve had a range of experiences over the course of the pandemic, most likely. Yesterday, I was glad that I deviated from the questions a bit and opened up to be a bit more conversational eventually (starting out, I felt a bit uptight as it was my first research interview ever)—which included me asking the athlete about *how* their experiences changed over the course of COVID-19. I also asked them to clarify their timeline (e.g., when they eventually returned to campus) at one point, which I was proud of because I was a bit nervous about asking a whole lot of extra questions but also recognized mid-interview that that information was really important in understanding his experience. Anyway, **maybe it’s valuable to consider reframing or adding a question that more clearly asks for a description of experiences over the course of COVID-19,** rather than just a blanket question of “how have you responded emotionally, cognitively, behaviorally?”

My **last question** about injury felt good, because it was a bit more narrow which I think felt more comfortable to me. The athlete had injury experiences to speak to, and so I moved on to the question of “describe how your experience as an athlete during COVID-19 compares to your experience of being injured and unable to participate.” They seemed to interpret this question as, “would it be worse to miss out because someone contracted COVID-19, or because they were injured,” so I may want to look at **wording this question a little differently** so that it is clear. After he talked from this perspective, I borderline-cut him off (can I do this? I hugely just let them speak, but after years of counseling classes and years of teaching, I recognize the immense value of cutting-off skills) and said, “consider *your own* experiences with each of these—how were they different?” Will have to make sure this was “kosher,” but another decision that I was proud of and happy with because it ultimately brought the interview back to what mattered—the interviewee’s experience.

In hindsight, I wonder if I should have asked the interviewee’s opinion on the interview itself. Or if I missed anything. I did ask if they had anything else they wanted to express, before the end of the interview. I guess in a way, that takes care of it? Wonder if I could have “piloted” better, or if I missed anything.

Overall, I was tired and nervous and new to this process, yesterday. I don't consider myself the best conversationalist, and that perspective/self-talk may linger in the back of my mind regardless of what I do. I guess that's okay—all part of the co-creation process. However, I am really good at sitting and letting people talk. And that seems to be beneficial in this process. I also think that part-way through the interview, I started to find more of a groove and loosen up a bit more. I think it's all going to continue to go well and will ultimately be of value in some way, and am already learning a ton just after having one 30-minute pilot interview (exactly 30 minutes! Nuts). I guess that's a major part of this whole dissertation thing too.

### **November 9, 2020 (San Diego, CA)**

In the midst of my travels, a couple weeks ago I had a really helpful meeting with Danielle—largely confirming that I'm on the right path with things. I was a little unsure immediately after my first interview—which, D advised me would be perfectly fine to include in the dataset of the questions has not changed. However, after reflecting a bit more on it, I felt satisfied with it. I also need to remember that I—in whatever state I'm in at the time of the interview—am a co-creator the interview and the conversation. That reminder helps me to drop some of the unnecessary self-judgment.

I conducted my second interview a few days ago, and it was *such* a different experience in many ways. I walked away (from my laptop #ZoomInterviews) feeling really good about it. For ease, I'm going to bullet point some of my thoughts:

- It felt really conversational. I do wonder if there are gender differences as far as what someone shares, what they focus on, how much they share, and how in-depth they share. I want to be sure to check that assumption and continue to question everyone in the same ways/equally as in-depth, but it also seems very normal that if someone is already open to sharing a lot, then it will naturally make me more comfortable digging further.
- This interview played out so differently than the last. The first participant focused heavily on the sport component and sport-related experiences during COVID. The second participant also discussed the sport-related experiences, but also quickly and naturally branched off into much more “personal” experiences. It's interesting because there were actually very few moments where I felt the need to “reign it in” or re-direct the conversation. Everything seemed relevant, because everything was their experience. And while my participants are all athletes and I mention a focus on sport-related experiences, I don't want to lose the “human” component at all. I don't want to pigeon-hole my participants into an “athlete” box, as it is truly just one aspect of their lives (regardless of how strong their athlete identity is). Also, it was simply interesting to let each athlete guide the interview and to hear where their focus drifted/what stood out the most to them.
- There was one moment in particular that I was really proud of myself for within this interview. At one point, the participant mentioned a personal experience that was not at all related to sport—and potentially not too relevant to their COVID-19 experience, either. However, I asked a follow up question and it ended up being very relevant. A seemingly very important part of the athlete's experience during the pandemic. A piece that, if I had not asked about it, I feel like would have been a really critical miss. I was



slightly unsure when I asked the question—I came across perfectly normal and confident on the surface when I asked, but internally I debated whether I was crossing the line or asking a question that was “too personal” and that was deviating from the proposed focus of my study. In very immediate hindsight, I was (and, am) **so** glad I asked and feel completely justified in asking. The athlete does always have the option not to answer—which I should also keep in mind, as it may help me to be more comfortable asking a greater range of questions.

- As the interview approached the one-hour mark, I had to actively start to wrap it up. The participant was getting a bit more tangential, but also, had somewhere else to be (and, I’m aware that the longer the interviews go, the more data there is to analyze—I’m okay cutting it off at an hour considering the extent of the questioning and the amount of information I can gather in that period of time for just two [updated interview guide!] primary questions). Even after I gave my closing statement and thanked the participant, they continued to add more thoughts. While I was ready and trying to wrap things up, I guess it’s pretty cool that the participant was open to sharing as much as possible—and felt comfortable doing so. Really, really grateful for that.
- In regards to the injury question, the participant had semi-recently missed participation time due to a sport-related injury. However, because of the timing of the injury in relation to their season, it did not seem to phase the athlete in the same way that COVID did, at all. **This is an important difference to note/be aware of—injury did not phase them like COVID did, possibly because of timing in relation to season.** However, they did then express a more recent experience that was not an injury, but that was a really relevant COVID-related experience that prevented them from participating—and was very frustrating.
- Ultimately, I let go of the interview guide quite a bit on this one. I definitely had it ready as a guide, and did use it as a guide at a couple points, but I let this conversation flow and I’m really satisfied with it. Looking forward to more of these.

Also, need to find a new third member of my analysis team—one dropped off recently. Okay timing, since we hadn’t started any analysis yet, but still not a comfortable space to be in. Need to get on that recruiting process, and also continue to recruit participants. I think I’m going to need to shift to Plan B for recruiting (Instagram) pretty soon.

### **November 27, 2020 (Bird Rock Coffee Roasters/Waterfront Park, San Diego, CA)**

As work begins to slow down, and my mind is beginning to settle (at least, it is this morning—meditation sesh and a long run may be contributing factors), I am giving this project the attention it deserves and requires this morning. I just finished sending follow-up emails to 30 people—two bounced back as undeliverable, which happened the first time as well. So, 28 follow-up emails, along with a follow-up text to an athlete who had been helping me with recruiting but I asked if they would be willing to participate in an interview themselves.

—PAUSE because I started receiving responses! Two (hopefully three) interviews scheduled!—

Well, that’s really cool. And it’s a nice mix of individuals as far as sport, school, location. It’s been nice to be able interview anyone at this point—it’ll be interesting as time goes on and I

must become more intentional with who I interview in order to capture a wide range as I hope to. For example, I probably need to put a cap on soccer players from this point forward. Although, I'm not sure that I would turn anyone away from an interview. I just can't see myself doing it. If someone is willing to speak, not only do I not want to miss the opportunity to speak with them, but I don't want to take the opportunity from them either. I think it's a beneficial, cool experience for these individuals to talk about their experiences—reflective, cathartic, maybe even healing in some sense. I like providing the space.

So, progress. I also need to solidify a third member of the analysis team. Might bring in someone to help with the early transcription so that my first look is cleaner, and I can simply re-listen and read and look for small adjustments. I think a transcriber would be good for me and the project on multiple levels, actually. Even simply in the sense that someone else will be listening to me conduct the interviews, outside of myself. I think it's a good way to sort of check myself.

Looking forward to giving this project more time and intentional, devoted energy. It's been a challenging and hectic few months, personally and professionally, since I proposed the study. It was a hard time to start it, but I'm excited to dive deeper and really commit to the process in the near future.

### **November 30, 2020 (Clarion, Fairmont, WV)**

I conducted two interviews today—after sending follow-up emails the other day, I can hardly keep up with all of the athletes willing and wanting to participate. It's really cool, very exciting. And just happens to be a great mix of athletes, as well. After today's interviews, I'm fascinated with some of the similarities between similar athletes (between an athlete I interviewed today, and the first athlete I interviewed). Same sport, same position, and nearly the exact same length of time speaking about their experiences. I've mentioned the possibility before that there may be a gender difference, and I am noticing the male athletes not speaking as long as female athletes (although, cannot make a clear comparison because I have not interviewed the same number of each). However, I am trying to be conscious of this assessment and not allow it to color the interviews as I go into them.

I felt a bit uptight with both interviewees today, though I still felt the interviews went well and that I engaged each of them well. Both were very much to the point and concise, the second person in particular jumping over thoughts and feelings and personal behaviors, and jumping instead to bigger picture and more generalizable ideas. With this individual, I initially felt tense knowing that I was hoping for more personal answers. However, as the interview went on, I really eased into the knowledge and recognition that, at the right time, I could simply follow up with another question to attempt to direct them to a more personal response. And, I did this a number of times later in the interview. I think I was toeing the line of leading, a bit, or at least I'm super conscious of that. However, I definitely feel that the athlete was able to get their thoughts and feelings across and that to the extent I can control it, I did not influence or skew any of that. In fact, the rapport that was built by the end led to some great sharing of information that I would not have gotten otherwise—a bit of shared laughter led to a really interesting piece of information/experience, in my opinion.

Overall, I'm becoming more comfortable with these interviews despite the bit of tension I experienced today. Good thing, because I have four or five more this week and likely a handful the following week. As of today, I also have a full analysis team *and* someone on board to assist with transcription. For the third time this summer/fall, I have willingly traveled back to Morgantown and this is my first day here. Funny that all of this research magic is happening in the place where it all began! Feeling very grateful for all of the participants thus far, and those who I have yet to interview but are so willing to share their experiences.

### **December 1, 2020 (Morgantown, WV)**

I am in between interviews now. Another day of two interviews! The last one felt great—felt like a lot of information/experience was gleaned. From the moment the call started, I could tell the individual was extremely friendly and open, ready to share experiences. This was the first male to really present this way, and sure enough was the longest interview I've had with a male so far. I felt a bit looser as a result, though when people are open, I sometimes become a bit more tense—so I guess I just sort of landed in the middle. As I get more comfortable, I also get comfortable asking questions about things that may not seem super relevant on the surface, but could be very relevant and provide an important piece of the athlete's experience that may have been missed otherwise.

The athletes I've interacted with up to this point have just been so impressive, as people and young adults. I'll also reiterate the same feeling I was having yesterday, because I'm still feeling immensely grateful for their time and willingness to share.

### **December 1, 2020 (Morgantown, WV)**

I continue to be blown away and grateful. Just wrapped up another interview. The gender differences still seem to apply—I've even noticed that females tend to provide, up front, emotions that they were feeling without even being prompted. I'm also noticing my questioning get more and more comfortable by the interview. One specific change I've noticed is that I'm now holding things that they've said in my mind, continuing to listen, but eventually prompting them back to that one thing/comment because I want to ask further questions about it. I think beforehand, I would have worried about asking them about something that they had said minutes earlier—probably out of fear that they would think I hadn't been listening to everything they are saying (which, I'm listening SO intently, and even so this is being recorded—what a blessing!). Now, I have no problem letting them finish a thought, or many thoughts, possibly even probing them on those thoughts, and then without a major reflection or fancy "closure" to that topic, simply letting it end and then jumping back to what they had said prior. **I'm starting to see this much more as a journey to uncover as much of their experiences as possible, to discover as much information as possible.** Like a plot of land, and I'm running around with a shovel trying to dig up most of it while I'm on the call with each of these individuals. So, bouncing back to something they said, often leads to not only more land being dug up and more being uncovered, but also deeper holes in those places as I understand their experiences more deeply.

I know I keep saying that I'm blown away and impressed by these student-athletes. In the last interview I conducted today, the person said something (actually, a couple of things, but one really stood out) that was so valuable for me to hear simply as another human, with my own challenges and difficulties. So beyond my awe and gratitude, I'm also finding these individuals to be inspiring. Oddly providing guidance, simply through the sharing of their experiences with me in this process of completing a project and a doctoral dissertation.

### **December 2, 2020 (Kingwood, WV)**

I am in between interviews right now. Becoming really comfortable with the process—it's cool to be in a flow where I easily can jump in, ask for an alias, ask the demographic questions, give the intro spiel (what a weird word—definitely didn't spell it right on my own), and then get into the interview. I remember the first interview when it felt really scattered and foreign, and I totally didn't feel like I knew what I was doing. Now, it's even set up on my laptop to easily scroll from one page to the next as I fill out the information. Feels great.

I've also had a couple of athletes ask me, over the last couple days, what my goal is with this study. I think it's great that they are curious and want to know more about it (beyond what is in the cover letter). I also love that I (to my own surprise, honestly) can speak so easily and casually, yet confidently, about the purpose of my research. After the first interview, I went through a brief period of thinking, *what is the point of this? No new information is coming from this. Nothing of value.* Well, I feel very differently now and can clearly express that when I am asked, particularly when asked by the participants themselves. I think that over the course of conducting interviews, the project has gotten much more near and dear to my heart as I interact directly with the individuals and really dig into their experiences and stories. I feel really invested, excited, and want to do well by them. It has become something that feels bigger than myself and bigger than “just getting the dissertation done.” And I'm really grateful to have taken this route and landed on a qualitative project, because I don't think I'd feel the same connection or the same drive and motivation at this point. I think engaging with each person for 30-60 minutes makes me feel far more connected and invested. I'm also seeing clear growth and development in myself as an interviewer/researcher, which also makes me want to continue engaging with this.

I've even had a couple of participants take it a step further, wanting to connect even beyond the Zoom interviews. This is an interesting component that doesn't impact my data, I think, but is not something that I saw coming or had thought about previously. Yesterday, a participant (who had originally contacted me via text and thus had my cell phone number) wanted to share a social media page with me in order to give me the opportunity to connect with a particular affinity group that they were a part of and had mentioned in the interview. Today, a participant was curious about my degree (probably based on the cover letter or my email signature) because they are currently exploring master's degree options. They wanted my perspective, my advice to some extent, about master's degree programs. I have not engaged with or checked out the affinity group yet—I may look at the social media page at some point, but strongly doubt I will actually get involved. As for the student who inquired about degrees, at a certain point I cut the recording while we discussed the student's potential path a bit more. With this being my first

qualitative project, I'm not sure where the ethical line is drawn here—like most ethical boundaries, I imagine it's pretty grey and fuzzy. However, I continue to go with my gut (probably the best ethical approach, in many cases) as far as how I engage with these participants. I continue to keep the professional/interviewer-interviewee/researcher-participant boundary clear, while also recognizing that I am human and they are human, and we can treat each other as such in an equal way.

My last thought is, during the last interview I consciously did not ask further questions about an area that the athlete had not brought up. Over time, I have become much more comfortable asking participants about their experiences—which includes, asking them about whatever I feel like asking about at that time. I think I need to remain cognizant of the balance between openly and easily asking questions, and allowing the participants to lead the interview. Allowing whatever comes up for them to be the focus, noting that what they focus on or bring up is what is most relevant to them. I need to work to strike the balance between these two. I think I can do this by asking questions comfortably and openly *about things that they have already mentioned, brought up, alluded to*. This way, I am not leading them or adding information or thoughts that were not already there, but I am still gathering more information.

Lastly, sometimes I ask questions that ultimately end up being repetitive, in that it leads to the person sharing the same information that they shared previously. I am getting better about not being self-conscious or worries about this, as I don't think it phases them much. I don't necessarily think they are irritated by this or anything, it simply shows that in that moment, there was not much more that they could access or that even exists to be accessed in regards to that experience. Perfectly fine. Good that I ask just in case there is further to dive.

### **December 2, 2020 (Kingwood, WV)**

My second interview today felt like it went really well and there was a lot of good information shared. I didn't feel like I asked much or had to prod too much. It supports my observation that there are gender differences insofar as the extent and the way in which the participants share information. Although, I worry a bit that because I've developed that bias/hypothesis in my mind, I may then expect interviews to go a certain way and subconsciously make them go that way as a result. There has been one male participant who shared quite a bit on his own, so that makes me think that I'm not exactly guiding certain individuals to share more than others. Deep down, I truly do not think I'm doing it. It's just a thought that I've had, and acknowledged, and want to be aware of (the fact that female participants seem to share more freely and easily and more long-winded than male participants).

I watched some episodes of that show, *The Social Dilemma*, on Netflix. And on one episode, they asked a few men and a few women to, independently, describe the rules of a simple game (I believe it was tic tac toe?). The women used wayyyy more words to describe the rules as compared to the men. So, I guess that aligns with what I'm seeing in these interviews. Again, it's likely not me. 😊

### **December 7, 2020 (Bonita, CA)**

I thought I was super in it today. Was a bit tired, but felt really ready and thought I was gonna be really “on” during this interview. I wasn’t super “on,” ultimately. I felt sort of lethargic and like, 75-80 percent focused. Wasn’t thrilled with every question I asked, nor thrilled with the ones that I didn’t ask. Didn’t always feel like I was listening super clearly. But, (1) thank goodness for the recording that sort of listens for me when I falter, (2) the interview is the creation of wherever our two minds are at, in the given moment.

### **December 7, 2020 (Bonita, CA)**

Once again, massively grateful for these athletes who have, with little more than a recruiting email or a small nudge from someone else, reached out to me willing to take their time and share their experiences. Who hop onto Zoom calls on time or early to meet with me. Who spend parts of their mornings or afternoons, who work with me across major time zones, to share their experiences. As I’ve said before, it makes me want to do this well and do it right. Their time and investment in the study, so voluntarily, means so much.

My second interview of the day was good, I felt a bit more engaged. In fact, I think the individual sort of forced me to be, because they moved so quickly and were so fact-based that I had to listen in carefully and then really dig deeper. It was one of those interviews that forced me to lead more and ask more specific, substantial questions, because all of the mental/emotional perspectives were not coming out as automatically.

It occurred to me in the midst of this interview that I also value the different mentalities and styles with which each person approaches these conversations with me. This is largely, I believe, just a result of who they are as individuals. They are just different, and focus on different things and even perceive my questions in different ways. And just as much as I want a blend of participants who are representative of different sports, regions, genders, years, and schools/conferences, I want a blend of unique individuals. A variety of personalities and mentalities. And I’m getting that, naturally. It’s really cool.

Also—that’s ten interviews. Nine that definitely count—because, I realized part way through an interview last week that the athlete did not meet my eligibility requirements due to not having more eligibility to play/not intending to play. I feel bad about that, and it was a great, valuable interview, but does not meet the study criteria so I want/need to figure out what to do about that. I want it to still be useful somehow, but it does not seem to make sense within this study.

So, nine interviews. Nine schools, seven leagues, six sports, five girls and four guys. Am I done???

### **December 12, 2020 (Sacramento, CA)**

The other night, I conducted my tenth interview. It wasn’t scheduled, and the individual texted me and asked if I was free to talk that night. I had really been wanting to speak with them, but it

became clear to me over the course of our communication that they weren't big on scheduling ahead of time.

Well, when they texted, I was two hours into a spontaneous evening road trip with a friend. We were on the freeway going through Los Angeles, with no destination in mind. I decided I would do the interview as best as I could via my phone (usually am on a laptop, at a desk). We had twenty minutes to get off the freeway and find a place to park where my friend could find a coffee shop and walk around while I sat in the car and conducted the interview. We found parking in Boyle Heights, just across the freeway from downtown L.A. (plenty of coffee shops, but not plenty of free parking). She took my coffee order and set off for 45 minutes. I sat in the passenger's seat and conducted the interview. I've done it so many times now, I know the introduction and conclusion spiels nearly by heart, and my two overarching questions are probably ingrained into my DNA forever now. The follow up questions, I ask based on what the participants share from moment to moment, and that also has become much more natural.

Despite being in a less-than-ideal setting on my end (potentially illegally parked, the occasional siren in the background, sitting in a car, on a phone), the interview was substantial and meaningful and I feel that I conducted it very much like I conducted the rest of them. It was so atypical, and not the most comfortable for me as I would much rather be sitting at a desk, in a room, using my laptop. Yet, it was not only a reflection of how I function under pressure but also a reflection of where I'm at as a qualitative researcher—at least as far as data collection goes. I was able to confidently and pretty seamlessly conduct an interview, and be pretty present throughout, in that less-than-ideal setting and situation. While I would never *try* to end up in that situation, I think it's cool that it happened the way it did. What an experience.

And if it wasn't for the athlete's text, I'm not sure where our stopping point would have been. It's what determined that our final destination would be Boyle Heights that night, before turning around and heading back to San Diego—but not until some of the best tacos I've ever had, sitting on a random street corner in L.A. What an experience. #research

### **February 16, 2021 (San Diego, CA)**

Reading through the interviews has been absolutely painful. Reading the transcripts has become one of those things that I put off because it is so damn miserable to do. I think they're really interesting and I love all of the information that is in them/that has come out of them, but after conducting the interviews + doing some of the transcription on my own + reviewing all of the transcripts that I did not do personally (and the ones that I did do personally), I feel like I've heard/seen all of it so many times.

After taking way too long to work my way through them, and with a few more left to do, I have finally figured out that while this is supposed to be the initial read through (which, the rest of the team is doing as well—at a quicker pace than I am, it seems), I am far more engaged when I am jotting notes in the margins. I had printed them all as hard copies, because I like working with hard copies and can carry them around with me and theoretically read them anywhere. Just reading them, I was not taking anything in because it just felt like a box to check. So I would read and not absorb any part of it, which only made me even more frustrated and has slowed my

process even more. It reminds me of a statement I heard recently: if you have to find motivation to do something, then you shouldn't be doing it in the first place. Well, now that I've gone through one of these interviews jotting notes/early coding ideas in the margins (so haphazardly, *so* much chicken scratch), I don't feel like I have to go searching for motivation or force myself to do this stuff.

So, the tiny margin notes/codes will continue and I'm back on an excited track again!

### **February 26, 2021 (San Diego, CA)**

I might need therapy just to process trying to code the initial interview. How unbelievably stressful and painful. And then I became avoidant, as a result of the stress and pain. What a time.

### **February 28, 2021 (San Diego, CA)**

An initial coding of one interview, plus a meeting with the coding team the other day, was really helpful and gave me much better perspective on the different layers of qualitative analysis. I initially felt like I didn't want to miss *anything* and therefore coded on various levels—which, after conversation with the team, was essentially more like working ahead and already creating categories. Within Dedoose, I had up to four levels (for example: COVID protocol > during practice > masking > was okay with it).

I love the use of the term *meaning units* that one of the coding team members threw out there, based on previous qualitative experience (thank goodness for the support and guidance of well-informed, experienced, caring people!). **That** is what we're looking for right now. Broad, descriptive units that capture the meaning and experience of the individuals—we've decided that within Dedoose, the initial coding can include a maximum of two layers/levels simply to contribute to the temporal clarity. There are just so many time points at which athletes had particular and unique experiences within those experiences (e.g., being told that season was cancelled, forced quarantine), that it is necessary for context to add that additional piece/layer. But, the crazy multi-layers I was creating will be undone, and re-explored (on my end) and re-defined as broader and less layered units.

I was **so** stressed getting through that first interview. Felt very lost. Really glad to have discussed with the team, very grateful for them on so many levels. And feeling more excited to get into the next few interviews with a bit more clarity about how to approach the transcripts.

Qualitative research seems so cute and fluffy on the surface, but *wow* what an absolute monster of work and rigor.

### **March 12, 2021 (San Diego, CA)**



In the midst of the first round of coding. It feels like I'm reducing these individuals' experiences into such meaningless little chunks of words (i.e., codes, meaning units). As I code, my brain keeps wanting to expand and think critically and analytically and make connections—but it's going to have to wait. I think this process is like a funnel, in a sense: (1) you get a vast, meaningful, experience-filled interview from each person, (2) you reduce it into tiny ideas and chunks, (3) you analyze the interviews and identify general themes re: meaning and experiences, drawing mega conclusions from the collection of interviews. But, can't do that without doing the in-between step of breaking the info into mundane little bits. And it's interesting and cool, but also brutal and painful and feels gross in some ways.

I am also feeling a bit self-critical because I do not feel like I have strong perspectives or biases coming up throughout this process. Maybe it's because I'm just not a super opinionated person to begin with. Or maybe it's because I recruited, interacted with, and interviewed all of these people via Zoom and therefore have a pretty clear, rich, in-the-moment understanding of their perspectives and who they are as people, that I wouldn't have if I was simply reading transcripts. I just feel like I have little to reflect on as far as my biases, which only concerns me because what if it means I'm not aware of some of my biases? Generally, I think I am pretty aware of them, and if something comes up later in this process, I'll be sure to note it.

#### **April 5, 2021 (San Diego, CA)**

“Being an athlete during COVID is a waiting game.” This is a code that I just added to an interview, and it is the first time that I was hit with the feeling that I see a major overarching category. While I am not pursuing categories yet, I occasionally think about them as I code. Mostly it's stressful, thinking that we're going to have to go through *all* of these codes and put them into categories and lump them together in ways that make sense. Actually, it's mostly exciting. Just a bit stressful. Regardless, this is the first time it felt cool to note something that feels meaningful, and that is an experience that all eleven athletes shared.

#### **April 7, 2021 (San Diego, CA, trailer park)**

I'm coding the ninth of the eleven interviews, and for the first time am having a big-picture experience as far as thinking about the collection of these athletes' experiences and how they connect and diverge from one another. The meaning that they each make from it. In the interview, the athlete notes that during COVID, they must be more prepared at practice, and that “you don't have time.” My interpretation of that is that there is less opportunity to casually hang around before and after practice in a more relaxed way. Practice has now become a more militant environment, in the sense that there is strict protocol (at least, much more than usual) and **it is now seen as a space where athletes need to get in, get the work in, and get out.** That's a pretty powerful shift.

#### **April 7, 2021 (San Diego, CA, trailer park)**

Another powerful statement from the same interview (paraphrased): If I can make it through the ups and downs and challenges that I have during the pandemic, I can “probably do anything.” This is the only athlete who has voiced this thus far. It doesn’t surprise me, because high level athletes are so used to challenges that they may not recognize the difficulties of the pandemic the same way other people do. So I find it particularly interesting that this one athlete has shared that mentality, which could be quite beneficial in adding drops to the well of confidence in the face of adversity, or to the well of *resilience*.

#### **April 7, 2021 (San Diego, CA, Subterranean Coffee)**

Many thoughts today—maybe because there is a lot of coding happening today. My latest thought, from a birds-eye view, is that some athletes may experience a shift in their perspective on competing. Catalyst for this thought is an athlete who appears to take their sport very seriously, who stated that upon returning to play, they “just tried to enjoy...that [they] have the privilege to play compared to other teams.” Makes me think—is there a greater appreciation once they do return to play? Does appreciation last and carry on and bump our baseline enjoyment up? Or is it like so many other experiences where we return to some semi-fixed baseline despite good or bad that happens to us? □ **Check general psych research on this.**

#### **April 9, 2021 (San Diego, CA, Lestat’s)**

I just wrote my last code. If this is what it feels like to finish round one of analysis (independently, not even as a research team, yet), I can’t imagine what finishing a dissertation will feel like. This has been such a tedious process. And I’m sure it’s not over, but just pulling together all of the thousands of tiny data points has been absolutely daunting, tedious, painstaking at times. It feels like so much, and feels fairly monotonous while simultaneously coming with so much pressure, because these codes and the way that we interpret the data ultimately provides the basis for the rest of the analysis and the information that comes out of this study. What a monumental task, what a relief to have it done and to feel good about it. It’s always been important to me to not rush this process or do it half-heartedly, and so I feel good about the work, time, and effort that has gone into coding the interviews.

Continually deeply grateful for the time, energy, and windows into their worlds that the eleven athletes gifted me with, in order for this work to happen. Continually deeply grateful for Jay and Kate for pouring time and energy into the same process that I am. I think a living person donating their organ to someone who needs it is at the top of the list of kind, selfless things someone can do. Now, I place “helping someone with qualitative analysis for little, if any, personal gain” right up there as well.

#### **April 25, 2021 (San Diego, CA)**

Met with Kate and Jay today to discuss and come up with codes—which, didn’t happen because Kate made a suggestion that was much better as far as trustworthiness, time, and the effective use of time. As much as I look forward to these meetings, this particular one caused me to overthink

and overprepare, because I felt like there was no way that it could go smoothly. After coding independently, we had approximately 1,600 total codes compiled. And the aim today was to condense them into 10-30 categories, to eventually begin to create themes. So, with such an impossible task before us, I could not figure out any possible way to make it a smooth process—and I thought of so many different ways to go about it.

Ultimately, I had some really valuable takeaways after today's meeting:

1. We opened the meeting with some general discussion of what we took away from the interview transcripts, and general concepts or themes that were appearing (without actually getting into the theming process). And this relatively brief yet very open, general discussion really helped me see the value of the information coming out of these interviews. I can see how themes may eventually form, and how the themes could be beneficial for those who are involved in college sports and some of the decision-making processes. And simply valuable to get this information out into the world, because it is so much more than just codes (which, is what it sometimes has felt like up to this point). There are shared experiences, and yet varied experiences, among the athletes who were interviewed. Between the three of us today, some really cool notes/observations/thoughts were brought up and I'm really glad we had that conversation. I think it was the best part of the entire meeting, actually.
2. Everything doesn't need to be a meeting. I strongly believe this in general in life—I think most meetings are unnecessary and most of the tasks can be largely achieved via email or quick phone call. However, I feel the need to hold meetings because it seems like a valuable part of this process, and because it seems like the Braun and Clarke model of sound thematic analysis involves “in-person” meetings. And, I do believe it is necessary and valuable. For instance, the cool discussion we had today could not have happened via email. However, the approach that Kate suggested is stronger in all ways compared to trying to talk through 1,600 codes on a Zoom meeting. Instead of doing that, we are now each going to independently look through the list of compiled codes (yep, all 1,600) and come up with our own 10-30 categories independently. Then, I will bring all three of our lists together and identify a final list. Beyond just the belief that everything doesn't need to be a meeting, I also need to remember that I am the lead on this project. It is critical to me that Jay and Kate are heavily involved and have a say because in my mind, they each play 1/3 of the role of determining data points and then analyzing them before ultimately determining the themes in these interviews. Yet, I am the lead and it is both my privilege and responsibility to make final decisions and lead.

### **May 3, 2021 (San Diego, CA)**

Here I am, coding on the eve of my 30<sup>th</sup> birthday. I'm in a reflective mood, so what better time to do a little reflexive journaling? Truthfully, so much has happened since my last journal that I've almost been too overwhelmed to even get into this thing. So, thank goodness for this reflective mood I'm in on the precipice of leaving childhood forever and passing through the gates of adulthood.

So, the three of us came up with categories that we thought effectively captured the nearly-1600 codes (according to Dedoose, 1599) that we originally had. It was up to me to determine categories, based on all three of our lists. It's funny, because I think we each felt as though we probably "didn't do it right" based on Jay and Kate's emails to me, and based on my own feelings about how I did mine (and how mine looked compared to theirs). This highlights (1) the iterative nature of this process, and (2) the value of having three coders involved in this process. I am learning (as I do over and over in life) that you can prepare as much as you want, but ultimately you're gonna have to do the thing. I spend so much time preparing and planning and trying to feel confident in each step of the process, way ahead of time, but at the end of the day all of the gold comes from just diving in and doing the analysis.

### **May 5, 2021 (San Diego, CA, Lestat's)**

Now I'm 30 and now I'm categorizing codes some more. I look forward to the next step of really figuring out the story. I do find it amazing how iterative the process is, inherently. Even with all of my attempts to plan and prepare (see journal entry above), the step-by-step process seems to happen pretty naturally. It still feels a bit chaotic at times, but I think part of that is the fact that I care so much about it and about accurately getting the story across. Which, I'm confident we will.

Also important to me is that whatever we put out there is actionable and provides real value to someone. I want to accurately put the athletes' stories out there, but I don't want to simply publish their stories just for the sake of it. I hope that we can effectively identify and use the information from the interviews that might shed light on parts of the athlete experience of COVID that have remained in the dark. And I hope it can elicit some change or action from institutions and organizations who can in fact make a real difference in the way athletes recoup from this and experience sports and life moving forward.

### **May 12, 2021 (San Diego, CA, Communal Coffee)**

Tomorrow, we (the team) will meet to talk themes for the first official time. I've really enjoyed the process of independently looking for themes within the codes and categories. It's fun to bounce in and out, from a zoomed in to a zoomed out perspective. I finally feel like I can see the forest a bit, and am starting to once again be able to see the potential value of this project. I do really want it to be of some value for athletes (current and future) and provide helpful information for the big players—athletic departments and their employees, namely. I can see this aim trying to sneak in as I think about how to structure and present the findings, and I'm not sure if this is how it "should" be or not. I can see why it would be beneficial, because if the information isn't presented in a way that it can ultimately be useful, what's the point? But also, I can see how it might skew the information that I present rather than simply presenting what the athletes shared.

On a similar note, I've started to conceptualize what a visual representation might look like. Again, pretty cool to see the progress being made and to be able to see the forest created

from all the trees, rather than painstakingly looking at and moving trees around to re-structure the forest. Quick breakdown: the impact of COVID on athletes, particularly relative to their sport participation, should be central in the model. The ways in which the athletes responded should surround or branch off of this central part of the model, as the things in the center of the model (emotional impact, behavioral impact, social impact ???) are ultimately what the athletes have had to respond to. We'll see how this morphs as the three of us come together with our themes. Although I don't want to get too far ahead, I actually think having a general idea of a model will be helpful in clearly identifying themes.

On a final note, we are eight weeks away from my tentatively scheduled defense and I am lowkey feeling the time pressure!

### May 13, 2021 (San Diego, CA)

Great meeting with Jay and Kate today—probably my fave so far. We started to get into broad yet gnarly discussion of themes, and a potential visual which I have somewhat sketched out amongst the madness that is my notes from this meeting.

I tend to be such an abstract thinker, but when it comes to this project I find myself going shallow for some reason. Maybe it feels safer or more “research friendly” or something. I'm so grateful that Kate and Jay bring these sweeping, abstract ideas and perspectives to the analysis process, because it sucks me back into the current of abstractness that I love so much. It makes this project feel so much more meaningful and exciting.

Now, to the visual. Jay even added a literal visual during our Zoom call as he was walking past a fountain in the middle of a little lake/pond deal. The two of them really spearheaded/synergied (not a word until now) this idea and I love it: the COVID ripple effect. Ripples, from various spheres of influence, or sectors of their lives, have impacted the athletes throughout the pandemic. So, the image is ripples.

And it just struck me as I started to reflect on my day, including our meeting today, maybe there can be even more depth to this. I started my day getting absolutely worked by the ocean. My toughest day of surfing yet, as I caught hardly any waves and got crushed by breaking waves over and over. I think it actually took tons of energy out of me today, and thank goodness for a relatively strong coffee before our research meeting because I was absolutely exhausted from my pounding this morning. Anyways, it randomly occurred to me that ripples and waves are connected, and I did a quick Google search that brought this up (The Natural Navigator, <https://www.naturalnavigator.com/the-library/ripples-waves-and-swell/#:~:text=Ripples%20are%20the%20instant%20effect,not%20be%20dampened%20so%20easily.>):

**Ripples** are the instant effect of wind on water and they die down as quickly as they form, as the surface tension of the water dampens their efforts. If a wind blows steadily across a large enough patch of water for a few hours then the ripples become **waves** and these will not be dampened so easily. Waves always travel in the same direction as the wind is blowing: *if the wind changes then the waves change with it*. Wave size is

determined by the strength of the wind, the *length of time it has been blowing* and the distance it has blown over or the 'fetch'.

When strong winds blow for longer than a few hours, it gives the water sufficient energy that it then takes on a character of its own. This character and movement is known as **swell**, and it will march across open areas of water independent of the wind.

Ripples, waves, swell. Ocean. Wind.

### **May 28, 2021 (San Diego, CA, Mixed Grounds)**

So much has changed, looking back at my last post. We have solidified themes and subthemes, along with capturing how athletes have responded to the pandemic. Our meeting yesterday solidified so much, which was really cool. Jay and Kate were critical in finalizing the results, and coming up with a visual that gave an accurate representation of the findings. I originally had a model that happened to resemble the social ecological model, which we decided wasn't the best move because it suggested that the three themes were dependent upon each other, or that one would not exist without the others. The current (and, final?) visual shows the relationships and overlap of the three themes, but also shows that they are not dependent upon each other (because, they aren't). They might have some small influence on each other, but are distinctly separate.

I feel like we've captured the stories of all these athletes, and now it's time for me to tell the whole story. I found 30+ new studies on athletes' experiences of COVID, but did not read them until we were deep into the analysis process and already had our themes pretty set. Now that I'm adding them to my literature review, I'm so glad I waited to look at them because they absolutely would have influenced my analysis process. Reading those other articles/studies gave me such a sense of satisfaction and pride in the work that we have put in and the analysis we've conducted, because I feel like we've gone deeper and identified parts of athletes' experiences that no one else has touched on. I now face the task of writing it all up and telling the story as effectively and accurately as I can—I'm excited, but nervous. But, feel good about our work. And also can't forget, we still need to take the deductive step of comparing the athletes' responses to COVID to their injury responses. The work never ends (but hopefully it actually does in a couple months).

## Appendix I

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