

# TAKE A TIMEOUT

*A skills-based podcast program  
for coping with mental health  
challenges as a collegiate athlete*

Research conducted at the University  
of North Carolina at Charlotte by:  
Alicia A. Dahl, PhD, MS  
Abigail Coffey, CHES



## Needs Assessment

Sixty participants representing various academic institutions and sports reinforced the need for accessible and relatable mental health resources via podcasts and mobile health technologies.



## Focus Groups

Thirteen students discussed a heavy reliance on social support, journaling, using distractions, and substance use for coping with mental health. Identity outside of the sport and injury emerged as common mental health precursors.

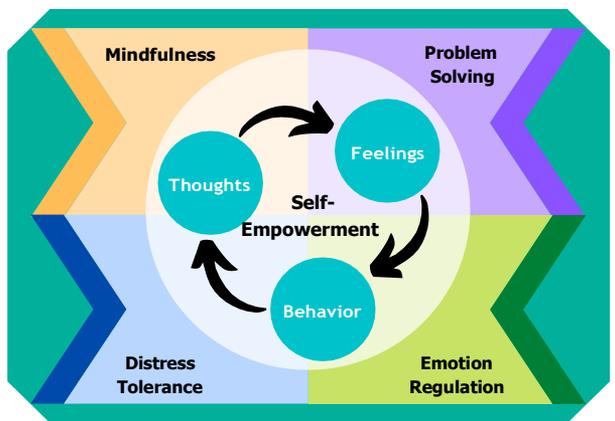


## Podcast Development

26 podcasts (13 men- & 13 women-focused storylines) were scripted and recorded, ranging from 7-17 minutes.

## Background

Mental health among collegiate athletes is a growing public health concern, with 28.1% of female athletes and 17.5% of male athletes exhibiting clinically depressive symptoms.(1) Concerns around stigma for reporting mental health status(2) combined with the underutilization of mental health services(3) adds another level of complexity for identifying and addressing mental health among National Collegiate Athletic Association (NCAA) members.(4) A solution to overcoming mental health challenges may be found in Cognitive and Dialectical Behavior Therapies (CBT/DBT), a form of psychotherapy that treats problems and boosts happiness by modifying dysfunctional emotions, behaviors, and thoughts and DBT adds a component of acceptance and validation.(5)



**References:** 1. Wolanin et al., 2016 2. Bauman et al, 2016; Kaier et al. 2015; Kern et al., 2017 3. Moreland et al. 2018; Van Raalte et al., 2015 4. NCAA 2016 5. Guadiano, 2008; DBT, 2018

For more information, visit:  
AthletesTakeATimeout.com  
Email: [timeoutstudy@uncc.edu](mailto:timeoutstudy@uncc.edu)  
Principal Investigator: [ADAHL3@uncc.edu](mailto:ADAHL3@uncc.edu)



# *Final Report*

## Take a Timeout: A skills-based podcast program for coping with mental health challenges as a collegiate athlete

UNIVERSITY AT NORTH CAROLINA AT CHARLOTTE

**ALICIA A. DAHL, PHD, MS**

PROJECT DIRECTOR

9201 UNIVERSITY CITY BLVD, CHARLOTTE, NC 28223 (CHHS 427E)

ADAHL3@UNCC.EDU

704-687-5612

**ABBY COFFEY**

UNDERGRADUATE RESEARCH ASSISTANT

9201 UNIVERSITY CITY BLVD, CHARLOTTE, NC 28223

ACOFFE12@UNCC.EDU

704-687-5612

**VALERIE CRICKARD**

EXECUTIVE DIRECTOR OF GRANTS AND CONTRACTS ADMIN.

9201 UNIVERSITY CITY BLVD, CHARLOTTE, NC 28223

VCRICKAR@UNCC.EDU

704-687-1862

## PROBLEM STATEMENT

As college campuses have seen a general increase in adverse mental health outcomes, collegiate athletics is no different, with about 30% of student-athletes feeling overwhelmed (NCAA, 2015). This drastically compares to 15.9% of their non-athlete counterparts who, when answering the same question, stated feeling extremely overwhelmed in the prior month (ACHA, 2019). Moreover, gender disparities exist: about 50% of women's sports student-athletes self-reporting being extremely overwhelmed in the past month, compared with 31% of their male counterparts during the COVID-19 pandemic (NCAA, 2021). Mental health among collegiate athletes is a growing public health concern, with 28.1% of female athletes and 17.5% of male athletes exhibiting clinically depressive symptoms (Wolanin et al., 2016). Concerns around stigma for reporting mental health status (Bauman et al, 2016; Kaier et al. 2015; Kern et al., 2017) combined with the underutilization of mental health services (Moreland et al. 2018; Van Raalte et al., 2015) adds another level of complexity for identifying and addressing mental health among National Collegiate Athletic Association (NCAA) members (Klenck, 2014; NCAA, 2016b). A solution to overcoming mental health challenges may be found in Cognitive and Dialectical Behavior Therapies (CBT/DBT), a form of psychotherapy that treats problems and boosts happiness by modifying dysfunctional emotions, behaviors, and thoughts and DBT adds a component of acceptance and validation (Guadiano, 2008; DBT, 2018). Evidence supports that CBT/DBT can benefit numerous conditions, including major depressive disorder, anxiety disorders, and eating disorders (Kern et al., 2017; Guadiano, 2008; DBT, 2018; Buffington et al., 2016). The COVID-19 pandemic led to an abrupt mass exodus for college campuses in the Spring 2020 semester. Collegiate sports were disrupted as social distancing measures reduced the capacity of public gatherings and presented new challenges for regularly close contact of athletes during team practices and events (NCAA, 2021). Creating mental health resources that can be accessed by student-athletes beyond the confines of a campus setting should be a priority, especially during a continuing pandemic when in-person services are limited. The *Take a Timeout* program tailors evidence-based practices to the experiences of NCAA student-athletes while providing a skills-based approach for addressing and overcoming mental health challenges.

## LITERATURE REVIEW

The National Institute of Mental Health (2019) reports that about 7% of the US population, or 17.3 million adults, has had a major depressive episode within the last year. However, when stratified by age, about 13% of adults ages 18-25 (college years) have had a major depressive episode within the last year and this is the highest rate among all the age groups. (NIMH, 2019). Anxiety disorders have similar trends in the United States. The overall prevalence is about 19%, but among 18-29-year-old adults is almost 22.5% (NIMH, 2017a). While the overall prevalence for eating disorders are less than 5% of the US population, eating disorders disproportionately affect special populations like females and athletes (NIMH, 2017b).

Student athletes are at an even greater risk for mental health disorders than their non-athlete counterparts. In a study by Wolanin et al. (2016), nearly a quarter (23.7%) of athletes expressed relevant symptoms of depression. While female athletes face higher rates of depressive symptoms at 28.1%, male athletes experience death by suicide at a higher rate than any other college aged population (Wolanin et al., 2016; Rao et al., 2015). In addition to depression, student athletes are also under an incredible amount of stress. In a survey done by the NCAA (2016), they found that 30% of student athletes feel extremely overwhelmed in a given

month. This high amount of stress can lead to anxiety. One study found that 31% of student athletes expressed moderate to severe anxiety (Drew & Matthews, 2019). This compares to 24.3% of non-athlete college students (ACHA, 2019).

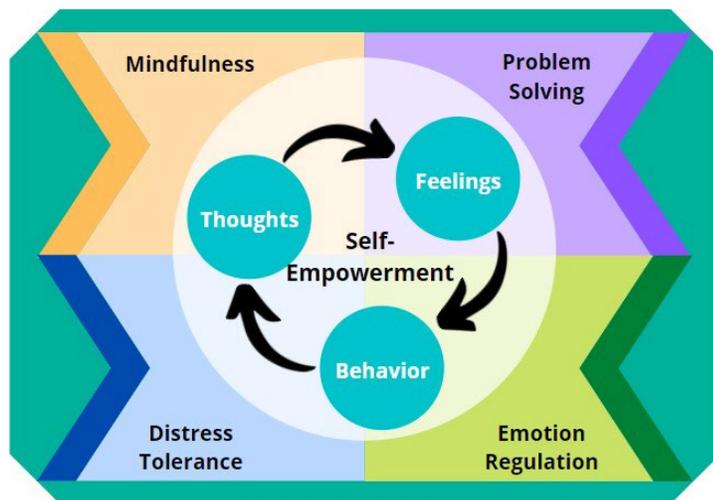
Psychotherapeutic treatments such as Cognitive Behavioral Therapy (CBT) can help individuals learn how to identify and change thought patterns, and consequently behavior and emotions (Beck Institute, 2019). Initially developed by Beck in the 1960's to treat depression, CBT has been researched in a variety of disorders and populations. Since CBT is built on thought and thought appraisal, it is often applied across various mental disorders. CBT has been cited in over 1,000 research studies supporting its use in treating depression, anxiety, eating disorders and substance use disorders (Beck Institute, 2019; American Psychological Association, 2020). The therapy is rooted in the theory that situations cause thoughts, which cause reactions in people. These reactions can be emotional, behavioral, or physiological. A later modification of CBT is Dialectical Behavior Therapy (DBT), which teaches people how to live in the present, navigate stress in a healthy way, regulate emotions, and focus on improving interpersonal relationships. DBT was originally tested to treat borderline personality disorder, but has been applied to eating disorders and substance abuse disorders.

To date, there is a modest body of research investigating the use of CBT/DBT in student-athlete populations. Brent et al. (2004) applied CBT to stress management in a sample of 30 student athletes and found a decrease in average sport anxiety at follow up and higher coping, though the results were not significant, likely due to the small sample size. Cimini et al. (2015) used CBT and motivational interviewing to address drinking behavior in a sample of 170 student-athletes and saw a significant increase in the use of protective behaviors. There is an opportunity to explore the effectiveness of CBT/DBT as a general coping mechanism in the student-athlete population. This study will aim to develop content relevant to the experience of student-athletes, while demonstrating effective coping mechanisms for mental health challenges.

## CONCEPTUAL FRAMEWORK

Figure 1 details the conceptual model of the podcast project. The conceptual model is informed by Cognitive and Dialectical Behavioral Therapies. Using inspiration from student-

Figure 1. Conceptual Model



athletes' lived experiences, the podcasts will use a story-telling approach to model and equip listeners with evidence-based skills for managing thoughts, feelings, and behaviors. By introducing skills rooted in mindfulness, problem solving, emotion regulation, distress tolerance, student-athletes may experience greater self-empowerment around coping with mental health challenges. With better management of thoughts, feelings, and behaviors, student-athletes may increase become more resilient to stressors.

## **METHODOLOGY AND DATA COLLECTION**

### ***Needs Assessment***

Student-athletes were eligible to participate in the online needs assessment survey if they were at least 18 years of age and an eligible student-athlete attending a U.S. higher-education institution during at least one of the academic years between 2018-2020. Students were primarily recruited with success through a contact list of SAAC representatives, plus snowball sampling. Social media posts announcing the research study were also used to recruit interested parties. Student-athletes interested in the research study were asked to complete an online interest form, followed by a research team member contacting them for eligibility screening. From prior research projects, the team decided on a stepped recruitment process to ensure participant investment in the study activities. A member of the research team applied a stratified sampling method to increase diversity in the perspectives informing the research project. For example, no more than two women representing the same sport from one academic institution would be selected to participate. This effort was intentional to increase representation across sports, campuses, and NCAA divisions.

Once eligibility screening was completed, enrolled participants were emailed a unique survey link to a Qualtrics form. Participants were prompted with an online informed consent document to review prior to advancing to the 72-item survey. The needs assessment included 16 demographic questions (e.g., age, race/ethnicity, sexual identity, academic year, sport, employment), followed by 12 questions about mental health history (e.g., diagnosis, hospitalization, medication for mental health disorder). Next, participants responded to a set of 11 questions regarding recent mental health (e.g., “Within the last 30 days, how would you rate the overall level of stress you have experienced?”), followed by 6 questions measuring the impact of the COVID-19 pandemic on students’ mental health (e.g., “As a result of the COVID-19 pandemic, have you experienced sleep difficulties?”). To better understand the use of mental health services, a 5-question block followed, mainly referring to services utilized in the last 12 months (e.g., “Within the last 12 months, have you received psychological or mental health services?”). The needs assessment survey closed with 12 questions of closed- and open-responses to better understand the needs and preferences of student-athletes regarding mental health resources. For example, “What do you think is the most pressing issue related to mental health for student-athletes?” [open-ended response].

Data from the needs assessment were analyzed using descriptive statistics and thematic summaries of open-ended responses. Findings informed a focus group guide for the second phase of the study.

### ***Focus Groups***

At the end of the online needs assessment survey, participants were able to indicate their willingness to be contacted for a 60-90 minute focus group held virtually over zoom. The research team was motivated to learn more about student-athletes’ lived experiences navigating through mental health challenges. These stories would contextualize the needs assessment survey data, and provide inspiration for the scripted character stories featured in the podcasts.

There were four focus group sessions held, with one session being restricted to males only and the remaining sessions restricted to females only. Once scheduled, participants were sent a zoom link and calendar appointment as well as a reminder email the day prior. In order to be admitted into the zoom session, participants needed to complete an online consent form and were asked to edit their zoom name display to their study ID to protect participants identity. The research team asked each participant to test their audio and microphone once they entered the zoom room to ensure quality recording of the session. Participants were asked to use the “raise hand” function when willing to share, so the focus group interviewer could manage the conversation and provide all participants an opportunity to talk.

The research team screen-shared a slide deck with the focus group discussion questions in an effort to help guide respondents and improve attention in the virtual space. Participants were welcome to skip any questions they did not feel comfortable responding to. Questions during the focus group centered around student-athletes sharing their personal mental health challenges and coping strategies, as well as their perceptions of general mental health challenges for their peers. Participants were asked to discuss the resources available to student-athletes at their institution, as well as their experiences using these services. There were 12 questions in the focus group guide, but the conversation led to organic follow-up questions and topics navigated by the facilitator (AD). Upon completion of the focus group, participants were emailed a gift card incentive for their time.

Audio recordings of the virtual focus groups were transcribed via Temi.com and reviewed for accuracy by the research assistant (AC). Transcripts were then coded by a team of trained research assistants using a codebook and Dedoose software. A minimum of two coders reviewed each focus group transcript. Team meetings were held bi-weekly to discuss the code application and resolve major discrepancies in the interpretation of themes. Where appropriate, results will be detailed by gender for relevance in the development of the podcast scripts.

### ***Podcast Development & Dissemination Platform***

Data from the needs assessment and focus groups guided the development of tailored content scripts for men and women’s sports teams. Using CBT/DBT skills as the basis for the podcast content, the research team scripted character stories that reflected common themes and experiences shared in the study findings. The intention behind gender-specific podcasts provided space for students to relate to the lead characters more directly. Often, the gendered scripts within the module followed the same format and objectives, with slight variation in the activities characters described (e.g., pedicure for self-care). Scripts were reviewed extensively by members of the research team, the hired voice actors, and volunteers. Voice actors were hired to record the character lines in the University’s podcast studio, managed by Alex Frizzell and recorded by Tim Anderson. The podcasts were professionally edited and reviewed by four researchers to ensure high quality ahead of dissemination.

A total of 26 podcasts were developed and recorded, with 13 centered around male story lines and 13 representing female lead characters. Podcast length varied from 7-17 minutes,

depending on the complexity of the CBT/DBT skills demonstrated. Table 1 below outlines the various skills communicated and demonstrated in the health promotion podcast modules.

Table 1. CBT/DBT Skills Demonstrated in Podcast Modules

Topic	Skill	Explanation
1. Mindfulness	Observe	Attending to events or emotions without trying to stop them
	Describe	Applying verbal labels to behavioral and environmental events
	Participate	Engaging with emotional experience without self-consciousness
2. Problem Solving	Identify and Overcome: Low risk	Recognizing stressful situations or emotions and formulating a series of options to overcome
	Identify and Overcome: High risk	Recognizing stressful situations or emotions and formulating a series of options to overcome
3. Emotion Regulation	Identify and Label Emotions	Utilizing mindfulness skills to further describe emotional experience
	Increase Positive Emotional Events	Increasing the number of pleasurable events in one's life
	Take Opposite Action	Acting in a way that is opposite to the current emotional experience
4. Distress Tolerance	Crisis Survival	Distracting, or self-soothing, to improve the moment, pros/cons
	Acceptance Skills	Radical acceptance of situation and turning of the mind toward acceptance
	Willingness vs Willfulness	Willingness is opposition to destructive behaviors, while willfulness is reflective of the negative emotion
5. Self-Empowerment	Acceptance	Understanding self and ability to overcome mental health challenges
	Service Utilization	Connecting students with mental health services on campus

In an effort to make the podcast content relatable, the characters were diverse in their roles and the podcasts rotated between two main characters between each session. For example, the female-forward podcasts featured two main leads: a transfer student experiencing anxiety and social isolation and a junior top-performer struggling with academic pressures and captain responsibilities. The main characters of the male-forward podcasts featured a student recovering from an injury and a second student who held a captain position trying to change the team's culture. Specific descriptors such as sport represented, academic major, and campus environment were intentionally omitted in an effort to maximize the relatability of the scripts to a diverse audience of listeners. In both sets of podcasts, there were supporting roles like significant others, coaches, roommates, and family members. Demonstrating how the actors respond to, navigate, and cope with mental health challenges was a key component of the podcast scripts. Challenges addressed issues around pressure to perform, managing academics, hazing, team culture, sexual assault, drinking, and relationship stress via the main and supporting characters. Each podcast had a narrator who set the scene and provided important educational content throughout the storyline. This narration also served as a knowledge checkpoint or pause for skill exercise in several of the recordings.

Participants from the needs assessment portion of this research project were invited to listen to the final podcast products and asked to provide evaluation feedback on the module content, characters, and entertainment value. Broad dissemination via a study managed website will be made available in December 2021, after revisions to the podcasts are complete. The dissemination platform was developed by the research team using Wix, a subscription-based website development tool. Student-athletes will be able to sign up with an account to access the podcasts at no cost. Listenership and evaluation feedback will be tracked through the website, which will be hosted for a 2-year period through 2023. This tool will be accessible to any student-athlete using a .edu email address. NCAA programs will be encouraged to promote this resource to their student-athletes.

## **FINDINGS**

### ***Needs Assessment***

A total of 81 eligible participants were invited to complete the online needs assessment survey. Sixty-three participants began the survey, with sixty completing the form (95% completion), with more representation among women's sports (80.3%) compared to men's (19.7%). There were a handful of transfer students included in the sample (16.7%). The majority of participants (n=54, 87.1%) identified as white, while six students (9.7%) identified as Black or African American and two (3.23%) identified as Asian. Regarding sexual orientation, 91.7% of respondents identified as heterosexual or straight, 5% identified as bisexual, and 3.3% identified as lesbian or gay. Of the sample, the majority spent most of their life in the Southeast region of the U.S. (n=31, 51.7%), followed by the Northeast (13.3%). With regard to housing, the majority of respondents lived on campus with roommates (n=36, 60%). Only 35% of the sample was employed for wages at the time of the survey.

Participants were asked to disclose any prior medical diagnosis of mental health conditions. Almost half of the sample (n=39, 48.8%) reported no prior diagnosis. Anxiety (17.5%), depression (16.25%), eating disorders (8.75%), bipolar disorder (3.8%), Post-Traumatic Stress Disorder (PTSD) (2.5%), and Attention Deficit Hyperactive Disorder (ADHD) (1.25%) were reported by participants. Only 2 students (9.6%) were ever hospitalized for their disorder. Overall general health was rated excellent (45%), somewhat good (38.3%), and average (11.67%) by most of the sample. When focusing on their mental health in the past year specifically, students rated their overall status as average (30%), somewhat good (28.3%), and somewhat poor (26.7%). Half of the sample (n=30, 50%) reported feeling particularly low or down for more than two weeks in a row during the last year. It's important to note that this survey was completed following the onset of the COVID-19 pandemic.

Table 2. Frequency of responses to “During my most recent athletic season...”

Question	Never	Rarely	Sometimes	Often	Always
I felt nervous	5.0% n=3	28.3% n=17	36.7% n=22	21.7% n=13	8.3% n=5
I felt hopeless	35.0% n=21	26.7% n=16	26.7% n=16	10.0% n=6	1.7% n=1
I felt restless	26.7% n=16	28.3% n=17	30.0% n=18	13.3% n=8	1.7% n=1
I felt so sad to the point that nothing could cheer me up	41.7% n=25	35.0% n=21	11.7% n=7	8.3% n=5	3.3% n=2
I felt that everything I did was an effort	26.7% n=16	26.7% n=16	20.0% n=12	20.0% n=12	6.7% n=4
I felt worthless	46.7% n=28	25.0% n=15	21.7% n=13	5% n=3	1.7% n=1
Question	Never	Rarely	Sometimes	Often	Always
My worries overwhelmed me	13.3% n=8	20.0% n=12	40.0% n=24	16.7% n=10	10.0% n=6
I found social settings upsetting	36.7% n=22	25.0% n=15	18.3% n=11	18.3% n=11	1.7% n=1
I had trouble staying focused on tasks	18.3% n=11	26.7% n=16	30.0% n=18	21.7% n=13	3.3% n=2
Anxiety or fear interfered with my ability to do the things I needed to do at work or at home	28.3% n=17	21.7% n=13	23.3% n=14	21.7% n=13	5.0% n=3

Measures of resilience were explored. Participants disclosed a favorable ability to adapt when changes occur, answering “often true” (53.3%) and “sometimes true” (11.7%). In response to the statement, “I tend to bounce back after illness, injury, or other physical hardships,” over half of the sample (51.7%) indicated this was “true nearly all the time”. The majority of participants (73.3%) responded affirmatively when asked if they would consider seeking help from a mental health professional if experiencing a personal issue that was bothering them a

great deal. Table 2 details the levels of psychological distress of student-athletes. Overall, psychological distress was typically infrequent for most student-athletes responding to the survey. Though, over a quarter of students reported feeling nervous or that everything they did took effort “often” or “always”, indicating an important need to reduce these feelings of distress among student-athletes. Worry, anxiety, and focus were also noted as often or constant markers of distress.

Creating mental health resources that are accessible and preferred among student-athletes was a priority of this project. Based on data collected in a prior project, the research team proposed a set of tools to participants to indicate their preference for receiving study-related content. The findings in Figure 2 confirmed high acceptability of podcasts as the delivery tool among student-athletes, so the team moved forward with the development of scripts. Participants were asked to indicate their preference for accessing mental health resources. To reduce redundancy in educational materials and mental health trainings, participants were asked to identify the mental health topics that were needed to be addressed among student-athletes. Figure 3 displays the distribution of responses. Students indicated a high need for content related to managing stress (91.7%), followed by recognizing signs of mental distress in teammates (85.0%), managing emotions (81.7%), and balancing academics/sports/life (78.3%). Over half of the students (55.0%) noted discrimination to be an important mental health topic to be addressed among student-athletes. A similar question about effective methods for communicating mental health topics was asked, and the overwhelming response supported efforts via individualized counseling with a sports psychologist (85.0%) followed by tools that were accessible independently via mobile devices, such as a mobile app with health information tailored to student-athletes (66.7%), links to audio recorded podcasts for athletes to listen to independently about strategies for mental wellness (65.0%). Team-based education sessions about mental wellness were also identified as a preferred mode of delivery for content (65.0%). Figure 4 provides additional methods of communicating health information to student-athletes. Given the resource challenges of providing individualized counseling to student-athletes across institutions, these results confirm the feasibility and acceptability of tech-based resources for educating students and promotion mental wellness in the target population.

Figure 2. Preference for tools/resources for accessing mental health information

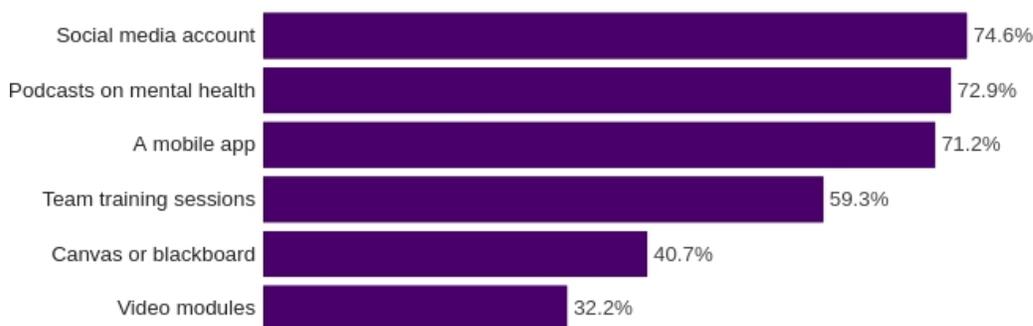
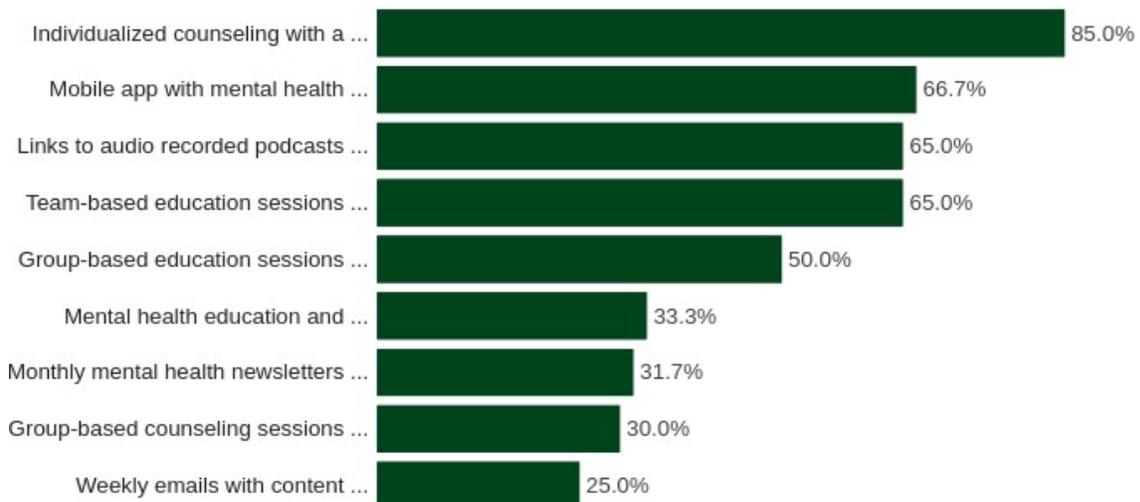
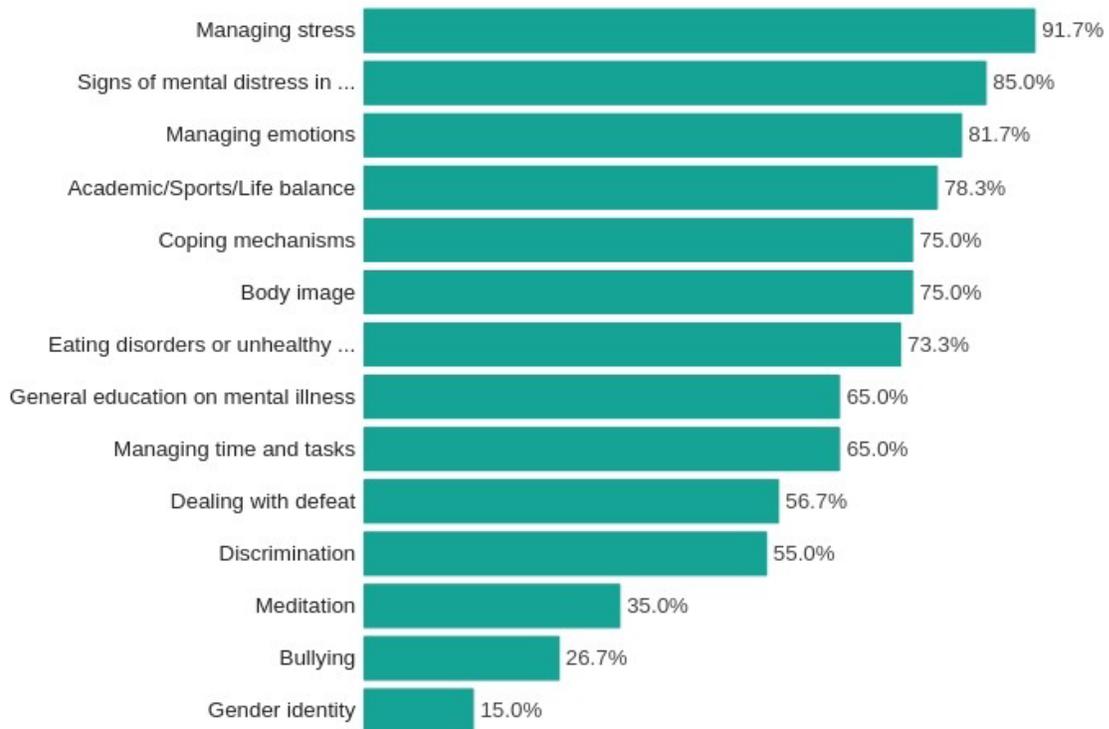


Figure 3. Distribution of responses to, “What mental health topics do you feel need to be addressed for student-athletes?”



## **Focus Groups**

Of the 41 participants who were willing to be contacted about participating in the virtual focus groups, 13 participants confirmed and attended a virtual focus group session (15.4% male; 84.6% female). None of the participants represented the same institution.

Discussions around mental health challenges experienced by student-athletes varied, though depression (35.3%), eating disorders (33.3%), and anxiety (31.4%) were frequently mentioned. Sexual assault was a topic that emerged during the 3 of the 4 focus groups with females, but was not a topic of discussion in the male-only focus group. On the contrary, gossip and pressure to perform led the narrative of the men's focus group. An important theme that emerged among both men and women's sports was the crossover between injury and mental health.

*"Like stress, anxiety and depression. And I think sometimes those go like unseen per se, because that's not something you can like directly see, obviously, I mean, you can see that someone may be upset or like stressed out things like that. You can see like symptoms, but you can't obviously see it like a physical injury. So, I think that's why those things get unseen in athletics, especially cause it's like, Oh, they're out cause their injury but people don't see what happens inside. And also like for counseling, sometimes those get pushed to the back on the back burner. It's like, Oh, it's not as urgent when in reality, sometimes it is." [female; stress, anxiety, depression]*

*"I'd say from personally experience when I was injured was is when I was like crazy, crazy depressed at first because I had never not been able to play my sport it was my first time being injured." [female; injury, depression]*

*"My sophomore and junior year, I was injured and had to miss the entire season two years in a row. And then my senior year this year, I got COVID so I had the right, um I ended up making a decision to opt out. So that combination of really playing one real year of athletics was really challenging for my, mental health" [female; injury, COVID-19]*

*"I kind of had to hold on for dear life, I guess, and buckle down. And I struggled a lot with depression at that time. And the one thing I had was running and that's my sport. And I just kinda tried to keep going back to it every single day, but with surgery I had to go through and it was really difficult to get out and run because I had to be very, very cautious." [male; injury, depression]*

*"I was diagnosed with an eating disorder and then anxiety and depression. And the eating disorder I've had it since my sophomore year, but it was undiagnosed for two years. And for the past couple of months I've been going to therapy for that. And so I was originally meeting with like a therapist, in athletics. And then they referred me to like a wellness clinic that they are connected to, so that's my experience with that." [female; eating disorder, anxiety, depression, sports psychologist, mental health resources]*

When discussing various mechanisms for coping with mental health challenges, the most commonly discussed was athletes' heavy reliance on social support (33.6%), journaling (18.6%),

using distractions (15.0%), and substance use (10.6%). Overwhelmingly, students relied on their social support networks during challenging times, citing peers (45.3%), counselors (29.4%), and family members (25.3%). The use of distractions as a coping mechanism was cited by men twice as often as women, and included notes of avoidance. Additional coping mechanisms discussed by women but not men in the focus groups included alone time (15.0%) and meditation (5.3%).

*“A lot of the time for me, like I don't, I don't think I handle it very well at all. I'm more just like something happens. I'll just shut down and then I'll go to my room and journal or watch TikTok or something to just take my mind off of it. And then maybe after, after I kind of like process everything, then I might talk to like one of my roommates about it. But that's really all, like, I really don't think I have a good plan for that.” [female, distraction, alone time]*

*“I like to talk to my best friend about it because I know better, like how small or unreasonable that it is. I can just ramble for however long I need and she's going to listen and she's going to try to understand me and help me. So that really helped. And then just calling my fiancé every night and telling him about how my day was and what the struggle was, knowing that he supports me same with my family and on the other side, taking time for myself and sometimes having like an hour alone and setting aside the time to relax and be okay with not doing schoolwork, taking a bath rather than sleeping. Those kind of things really helped me.” [female, social support]*

*“One of my second ways is it seems counterintuitive, but for me, it's becoming busier. So, taking more classes always having something to do so I could not think about other things. So, I couldn't, it's always, when I wake up in the morning, as soon as I wake up, go, go get breakfast, go to class, go to go back to practice, go to class again, go get lunch, go get practice again, go to weights, come back, do homework bed. Boom. That was it. I couldn't think throughout the day I can socialize a little bit, but I didn't have time to sit down with myself, sit in a dark room, cut lights off and think.” [male, avoidance]*

Following the discussion of mental health challenges and coping mechanisms, the students reflected on mental health resources available to them. Replies around the resources available and accessible to students varied greatly by institution size, athletics conference and division, and COVID-19. Despite some students having resources available on campus, issues of stigma were reported as a barrier for meeting with therapists. Team-based programs were discussed as a positive route to connecting student-athletes to additional mental health resources as an alternative.

*“We do have really good resources on campus, but being like a smaller campus, it's hard to, I guess, get to those resources without being seen. Like sometimes I'm nervous. Not that it would be an issue if someone did see me like going to counseling, but sometimes I want it to be more private to just even like getting there without people running into me.” [female; mental health resources, stigma]*

*“...then we're trying to set up a program where it's like smaller groups, people feel more comfortable with coming in to talk. But I really just, I think that what we tried to do with*

*the big groups no only really felt comfortable with opening up, which is understandable with a bunch of people from different teams who you don't really know.” [female; mental health resources; team-based programs]*

*“Last year we would have, I think we had like two separate meetings and it was like our entire athletes, like all of us. And like we would be put into like break out groups and we would have a speaker in each breakout group. And like, we kind of just like talked about mental health and like what it means and like who to go to and who to talk to. And like just being open and like say that it's okay to ask for help and stuff like that. And I think that was really beneficial. I think it helped us. It may be like, I didn't realize how many resources we had until that point, but I think if we just like continue to like normalize the conversation and like letting other people know that like we're there for them kind of, and like teams need to be able to talk to each other kind of, but I think like more, I wouldn't say crash courses, but like more info sessions on like mental health with our athletes. I think that'd be really beneficial.” [female; mental health resources; team-based programs]*

Identity emerged as a common theme from the focus groups. Participants discussed identity crisis (62.5%) and identity role conflict frequently (37.5%). Managing academics alongside the sport was discussed extensively, with a sentiment of overwhelm and high pressure to perform. There was a specific discussion about how the COVID-19 pandemic added an additional layer of identity crisis as students were detached from their sport and teammates.

*“Try to never lose yourself to begin with so like going in freshman year, like obviously you're eager to play your sport and whatnot, but don't get so caught up in your sport that first of all, like you lose your academic piece. I know that happened to some people that I know, like they were so caught up in our sport or like sports on our campus that they just like didn't pass their classes. And if you don't pass your classes, you're no good for the sport anyway. Cause you can't play. So, I think just not losing yourself to begin with and just knowing who you are as well as being an athlete, so like whether that's finding a committee on campus that you want to be a part of. So, like there's still something outside of athletics for you, because then say you do get an injury or something then you know, it's what do I do?” [female; identity crisis]*

*“It's always been like, I have to prioritize one over the other. And it's definitely one is going to get less attention than the other.” [male; identity conflict]*

*“ While we were all quarantined and sent home, we had the identity of being an athlete and that was, I mean, we got caught, like I said, just being an athlete and then getting all of it taken away and we have to go home and I know for us, at least we didn't train or do any like lifting or body weight stuff at all. So, we had nothing and kind of like [student] said, it was just like, what do I do? And that generated a lot of like identity crisis...” [female; impact of COVID-19, identity crisis]*

Team dynamics emerged as another area for our podcast content to focus around. Whether positive or negative, students noted the culture of a team as a critical piece of the student-athlete

experience. Gossip among teammates and across teams was cited frequently (33.3%) in the men's focus group. Power structures were noted as a critical piece of team dynamics, specifically with the role of coaches (55.2%) and team leadership (e.g., captains) (20.9%). Bullying and hazing was mentioned 13.8% of the time during the focus groups. Lastly, the impact of the COVID-19 pandemic and updated protocols added another layer of complexity around team dynamics, with students citing mistrust as a main issue. Although this podcast program is not centered around the pandemic, trust and power structures are important to understand as part of the narrative.

*"We have a dry season, so we're not allowed to drink. And as a senior captain, it's my job to enforce those rules. And we had eight of our 11 starters suspended in a huge game. And that caused a ton of stress for me, because I was one of the three on the field and we lost 6-0, it was 6-0 in the first half. So, then we as a team, our coach, he locked us in our locker room after the game and was like, you guys need to figure it out. So, we literally sat in there for hours and just yelled and cried." [female; team dynamics, stress, substance use]*

*"I actually opted out of the season and that was the large reason why I opted out because the way they were treating us from the beginning but I mean, it just, it created a culture of like a lot of people on our team, not trusting each other... like we're not really supposed to be, like the teams aren't really supposed to be hanging out with anybody that doesn't get like consistently tested or like things like that. And it's has just created like a really toxic culture and of my team of people not trusting each other and people like just being scared of the coaches." [female; team dynamics, impact of COVID-19]*

*"People have been asking if we were like responsible. Not even asking if we were like, feeling okay. Our coach like made us feel like we had like murdered somebody or like ruined the entire season. And they've just like continued the past couple of months to be like really rude about the outbreak on our team. And I think like if you didn't have a mental health challenge, even before, like it either you either have one now or like it was worsened greatly by the way that our coach and our um athletic department reacted." [female; team dynamics, impact of COVID-19, power structures]*

When asked to provide recommendations for podcast content, participants noted the need for the series to feel relatable with topics that student-athletes would find interesting. Specific feedback that was helpful in guiding the narrative, storytelling approach for the podcast cited the importance of breaking down the situation and giving the listener an insider's perspective to the character's thoughts and realities of being a student-athlete. Further, students discussed the idea of providing content around managing minor mental health challenges, rather than scripting only monumental or tragic events.

*"When you want to listen to the story, you want to listen to some that get captures your attention and keeps you listening. So, you want something that, in order to do that you want something you can relate to. So, you don't want to just talk like, and person X, you want to give him a name. You want to give him a background or give them a sense of*

*identity so that whenever I'm thinking, every time the name John Doe pops in my head, I think of brown hair, six, eight, 250-pound basketball player that's just dominant on the court. You want to give them some sort of history background that makes you okay. All right. Hey, I can relate him back to my friend that's over here and then find some way to make people connected. So, you want them to think like I said, relate back to other people in that situation that looks, seems familiar.” [male; podcast recommendations]*

*“Like, I'm drinking, going out, whatever, but being like, but this is really what they may be struggling with or like, but this is really like how like how they're feeling on the inside. And I know like for me, I struggle with that, like going out and being like, like hardcore, like when I was talking about mental health, I was a party animal and it wasn't because I was dead on the inside. Like I can so relate to that. And so like having like maybe like breaking down it, like having that barrier and breaking it down through dialogue, I think that that would be so powerful.” [female; podcast recommendations]*

*“Like we are not waking up with a smile on our face. We do not have time to eat a full meal like that. We're not sitting there taking notes during class. Like, let's be honest. And so, yeah, like just sorry, that was just kind of like reiterate like the, like the realness that would be I think appreciated in the podcast.” [female; podcast recommendations]*

*“Give them something that they can think, Oh, they did this in this story and I'll eventually go about it and like, okay, I remember what this person did. And this story, let's see if this works here. So, make the settings on a campus, in a classroom at practice. Something that they are, that student-athletes are familiar with.” [male; podcast recommendations]*

*“It would be like a really great kind of idea or aspects that it doesn't always have to be something super major. Like it's, it doesn't always have to be like a giant traumatic event that like happened. You know, unfortunately it happens sometimes. But I feel like a lot of it is a lot of build up over time. And then kind of like, you just feel like you, you lose too much to be able to regain it back. So, you know, it's like sometimes it's just like a little tiny thing that goes wrong.” [female; podcast recommendations]*

From the five focus groups, the research team was able to identify common mental health challenges facing student-athletes. Primarily, the identity conflict of managing sport and academic responsibilities needs to be a central storyline. Social support will be a main component of the character storylines, using crossover opportunities to demonstrate the realities of social networks on a college campus. Teammates, coaches, roommates, significant others, best friends, and relatives will be part of the narrative, given the strong dependence described by both male and female student-athletes in the focus groups. The podcasts will integrate coaches as an important, effective resource when trained on mental health matter. Using the coach role to demonstrate positive interpersonal communication and the ability to foster an environment of trust can be a useful modeling tool should coaches decide to implement our resource. Injury and recovery as a precursor for mental health challenges was another key take-away message from the focus groups. Specific to the female storylines, addressing sexual assault (with a trigger

warning for listeners) will be integrated to the role of a supporting character, given the reality of the issue as 1 in 4 college women experience sexual violence. As noted in the focus groups, stigma still exists in collegiate athletics, with barriers to accessing resources. Through this podcast program, we aim to educate and develop skills for student-athletes coping with mental health challenges.

*“I think hands down the biggest mental health struggle that I've seen in student-athletes, like at both my old school and my new school is like not asking for help. Like there is like this big stigma of like, I'm a student-athlete. I have to be tough. Like I have to be mentally tough. Like I can't show weakness. So, like the biggest struggle I think for people is like being in denial and like suppressing their mental health and their struggles and all that kind of stuff, because they feel like they're not allowed to have those emotions because they're student-athletes and supposed to be tough.” [female; mental health resources, stigma]*

## **IMPLICATIONS FOR CAMPUS LEVEL PROGRAMMING**

This research project has several important implications for campus level programming considerations.

1. **Student-athletes need effective and accessible mental health support.** Existing literature, along with findings from our needs assessment survey and focus groups indicate a wide range of mental health challenges and varying levels of support across institutions. The effects of the COVID-19 pandemic will be long-lasting and will continue to effect student-athletes' mental health. While individualized counseling was viewed as the most effective strategy for managing mental health by students in our study, the feasibility of implementing this effort on a large scale is unlikely, especially during a pandemic. As such, the student-athletes in this study expressed high favorability around tools that are readily accessible through mobile devices (e.g., podcasts, social media accounts, and mental health apps).
2. **Health promotion materials need to be relatable to the student-athlete experience.** Student-athletes were clear about the need for resources to reflect real experiences, rather than idealistic or overly fabricated content. Within our focus groups, students shared multiple examples of ineffective communication campaigns around mental health due to the unrealistic portrayal of the lived experience. Audience buy-in is important to the effectiveness of a health promotion campaign. Student-athletes should be involved in the development of mental health messages to ensure relatability and uptake.
3. **Social support is a critical structure for student-athletes navigating mental health challenges.** Most of the students cited reliance on social support during challenging times. However, transfer students expressed greater struggle with establishing strong relationships. Athletic programs may consider the importance of transfer student transitions and early relationship building.
4. **Identity crisis stemming from sport disruption needs critical attention as a precursor to mental health disorders.** Regardless of gender, class year, or sport, student-athletes expressed intense struggles when coping with injury/recovery or the

COVID-19 pandemic and the abrupt shift in their sports. Without the routine of practice and competition, student-athletes disclosed downward patterns of thoughts, feelings, and behaviors. Athletic programs, coaches, and teams would benefit from additional trainings or response protocols to protect athletes who are temporarily removed from their sport for injury or other disruptions. Additional encouragement for students to establish an identity outside of the sport may be an important first step in building external resilience among student-athletes.

5. **Podcasts are a cost and time-effective tool for reaching student-athletes.** Students supported the use of podcasts for sport-related trainings over video modules. The commitment to complete podcast modules allowed students greater flexibility to complete their school work and accommodate practice and travel schedules. Additionally, students acknowledged the challenges of coaches delivering mental health support, citing lack of training as a common factor. The discussion of using podcasts for reaching student-athletes expanded beyond mental health topics, such as career preparedness. Future programming may consider interviewing experts or student-athletes via podcasts to broadly disseminate information equitably across athletic programs. This approach reduces barriers related to cost, staffing, education, and time that would traditionally be funneled to in-person trainings. Alternatively, athletic programs may consider using existing podcasts to supplement mental health programs already established on campus.

## REFERENCES

1. NCAA. (2015). *NCAA Goals Study of the Student-Athlete Experience*. Retrieved from [https://www.ncaa.org/sites/default/files/GOALS\\_2015\\_summary\\_jan2016\\_final\\_20160627.pdf](https://www.ncaa.org/sites/default/files/GOALS_2015_summary_jan2016_final_20160627.pdf)
2. American College Health Association (ACHA). *American College Health Association-National College Health Assessment II: Undergraduate Student Executive Summary Spring 2019*. Silver Spring, MD: American College Health Association; 2019.
3. NCAA (2021). *NCAA Student-Athlete Well-Being Study*. Retrieved from [https://ncaaorg.s3.amazonaws.com/research/other/2020/2021RES\\_NCAA-SA-Well-BeingSurveyPPT.pdf](https://ncaaorg.s3.amazonaws.com/research/other/2020/2021RES_NCAA-SA-Well-BeingSurveyPPT.pdf)
4. Wolanin A, Hong E, Marks D, Panchoo K, Gross M. Prevalence of clinically elevated depressive symptoms in college athletes and differences by gender and sport. *Br J Sports Med*. 2016;50(3):167 LP-171. <http://bjsm.bmj.com/content/50/3/167.abstract>.
5. Bauman NJ. The stigma of mental health in athletes: Are mental toughness and mental health seen as contradictory in elite sport? *Br J Sports Med*. 2016;50(3):135-136. doi:10.1136/bjsports-2015-095570
6. Kaier E, Cromer LD, Johnson MD, Strunk K, Davis JL. Perceptions of Mental Illness Stigma: Comparisons of Athletes to Nonathlete Peers. *J Coll Stud Dev*. 2015;56(7):735-739. doi:10.1353/csd.2015.0079
7. Kern A, Heininger W, Klueh E, et al. Athletes connected: Results from a pilot project to address knowledge and attitudes about mental health among college student-athletes. *J Clin Sport Psychol*. 2017;11(4):324-336. doi:10.1123/JCSP.2016-0028
8. Moreland JJ, Coxe KA, Yang J. Collegiate athletes' mental health services utilization: A systematic review of conceptualizations, operationalizations, facilitators, and barriers. *J*

- Sport Heal Sci.* 2018;7(1):109-119. doi:10.1016/j.jshs.2017.04.009
9. Van Raalte JL, Cornelius AE, Andrews S, Diehl NS, Brewer BW. Mental Health Referral for Student-Athletes: Web-Based Education and Training. *J Clin Sport Psychol.* 2015;9:197-212. doi:10.1123/jcsp.2015-0011
  10. Klenck C. *Best Practices for Athletics Departments.*; 2014. <http://www.ncaapublications.com/productdownloads/MindBodySport.pdf>.
  11. NCAA Sport Science Institute. Mental Health Best Practices. 2016. doi:10.1037/e329712004-001
  12. Gaudiano BA. Cognitive-Behavioral Therapies: Achievements and Challenges. *Evid Based Ment Heal.* 2008;11(1):5-7. doi:10.1136/ebmh.11.1.5
  13. What is Dialectical Behavior Therapy (DBT)? <https://behavioraltech.org/resources/faqs/dialectical-behavior-therapy-dbt/>. Accessed November 14, 2018.
  14. Buffington BC, Melnyk BM, Morales S, Lords A, Zupan MR. Effects of an energy balance educational intervention and the COPE cognitive behavioral therapy intervention for Division I U.S. Air Force Academy female athletes. *J Am Assoc Nurse Pract.* 2016;28(4):181-187. doi:10.1002/2327-6924.12359
  15. National Institutes of Mental Health. (2019). Major depression. Retrieved from <https://www.nimh.nih.gov/health/statistics/major-depression.shtml>
  16. National Institutes of Mental Health. (2017). Any anxiety disorder. Retrieved from <https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder.shtml>
  17. National Institutes of Mental Health. (2017). Eating disorders. Retrieved from <https://www.nimh.nih.gov/health/statistics/eating-disorders.shtml>
  18. Rao, A. L., Asif, I. M., Drezner, J. A., Toresdahl, B. G., & Harmon, K. G. (2015). Suicide in National Collegiate Athletic Association (NCAA) Athletes: A 9-Year Analysis of the NCAA Resolutions Database. *Sports Health*, 7(5), 452–457. Doi: 10.1177/1941738115587675
  19. Drew, B., & Matthews, J. (2019). The prevalence of depressive and anxiety symptoms in student-athletes and the relationship with resilience and help-seeking behavior. *Journal of Clinical Sport Psychology*, 13(3), 1–19. Doi: 10.1123/jcsp.2017-0043
  20. American College Health Assessment [ACHA]. (2019). National College Health Assessment II: Reference Group Executive Summary Spring 2019. [https://www.acha.org/documents/ncha/NCHA-II\\_SPRING\\_2019\\_US\\_REFERENCE\\_GROUP\\_EXECUTIVE\\_SUMMARY.pdf](https://www.acha.org/documents/ncha/NCHA-II_SPRING_2019_US_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf)
  21. Beck Institute. (2019). History of Cognitive Behavior Therapy. Retrieved from <https://beckinstitute.org/about-beck/team/our-history/history-of-cognitive-therapy/>
  22. American Psychological Association. (2020). *What is Cognitive Behavioral Therapy?* Retrieved from <https://www.apa.org/ptsd-guideline/patients-and-families/cognitive-behavioral.pdf>
  23. Brent, M. E. (2004). *A cognitive-behavioral stress management intervention for division I collegiate student-athletes.* [Doctoral dissertation, Ohio State University]. ProQuest Dissertations.
  24. Cimini, M. D., Monserrat, J. M., Sokolowski, K. L., Dewitt-Parker, J. Y., Rivero, E. M., & McElroy, L. A. (2015). Reducing high-risk drinking among student-athletes: The effects of a targeted athlete-specific brief intervention. *Journal of American College Health*, 63(6), 343-352. Doi: 10.1080/07448481.2015.1031236

## **APPENDICES**

### **a. Products**

- a. Podcast Recordings are available via:  
<https://drive.google.com/drive/folders/15IsUNDN5mwv6e1SOsP4NKpxIkbY6ZAx6?usp=sharing>
- b. Website for broad podcast dissemination to NCAA student-athletes and programs will be available publicly by January 1, 2021 via:  
[www.AthletesTakeATimeout.com](http://www.AthletesTakeATimeout.com)