

# An Exploratory Study on Student-Athlete Mental Health: Personal and Perceived Barriers to Help-Seeking Behavior

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## ABSTRACT

Student-athletes are more likely to develop mental health problems than the general population. In addition to schoolwork, social networks, family ties, and financial obligations, collegiate student-athletes are required to attend practices, travel for games, attend athletic events, and perform extracurricular duties. The addition of possible injury, overtraining, burnout, scrutiny from the public and/or the media, and consistent pressure to perform results in athletes playing through both physical injuries and mental health problems. Despite the high number of athletes who report needing mental health support, fewer than half seek out mental health services. Research has identified stigma as one of the largest barriers to mental health help-seeking behavior (HSB). Help-seeking behavior has rarely been studied in relation to the larger body of work on mental health stigma in sport. The purpose of this study was to observe and describe student-athletes' perceived stigma (e.g., what others think) and personal stigma (e.g., what the individual thinks) in relation to HSB. A sample of  $n = 20$  athletes completed an online Qualtrics Survey, which included Link's Perceived Discrimination and Devaluation Scale, Mental Health Literacy Scale, Self-Stigma of Seeking Help Scale, Help Seeking Questionnaire, and Student-Athlete Role Behaviors Questionnaire. Results from this study may help develop mental health interventions to improve student-athlete HSB.

## KEYWORDS

Mental Health; Student-Athlete; Stigma; Help-Seeking Behavior; NCAA; PDDS; MHLS; SSOSH; HSQ; SRBQ

## INTRODUCTION

Mental health disorders account for an estimated \$800 billion in direct costs and \$1.7 trillion in productivity loss globally per year.<sup>1</sup> Over 50% of the world's population will experience a mental health disorder at some point in their lives.<sup>1</sup> From 1990 to 2017, the global incidence of depression rose more than 49%.<sup>2</sup> The COVID-19 pandemic has only exacerbated mental health problems worldwide.<sup>3–6</sup> A population study from 2007 to 2017 found that US college students had a 15% increase in utilization of mental health resources.<sup>7</sup> Lifetime diagnoses of depression and suicidal ideation also saw a 14% increase.<sup>7</sup> Increased utilization of resources and decreases in stigma are noted as potential reasons for upticks in diagnoses among the general college student population.<sup>7</sup>

Student-athletes are at greater risk for mental health problems compared to the general population due to a unique series of factors resulting from their athletic status.<sup>8–12</sup> Student-athletes are under constant pressure to perform athletically, and a demand for “mental toughness” above all else often results in athletes playing through both physical injuries and mental health problems.<sup>13–16</sup> Research shows that while over 54% of Division I (DI) National Collegiate Athletic Association (NCAA) student-athletes have stated a need for mental health support, fewer than half have utilized mental health resources.<sup>9</sup>

The NCAA lists student-athlete mental health as a main priority in its mission statement.<sup>17</sup> In addition to the schoolwork, social networks, family ties, and financial obligations juggled by the average college student, collegiate student-athletes are required to attend practices, travel for games, attend athletic events and perform extracurricular duties.<sup>8, 11, 13</sup> The addition of possible injury, overtraining, burnout, scrutiny from the public and/or the media, and consistent pressure to perform contributes to mental health problems.<sup>8, 12–13</sup> NCAA recruiting starts before college, meaning young athletes enter into competitive environments often before developing proper coping mechanisms.<sup>13</sup> Poor mental health outcomes can result in a stressful environment without assistance from mental health resources.<sup>13</sup> Chronic stress can have detrimental effects on brain structure and function, including reductions in hippocampal volume, which are also notable in mental health disorders like anxiety and depression.<sup>18–19</sup>

Prejudice and discrimination may prevent those labeled with mental health problems from achieving individual-level success and independence, regardless of athletic status.<sup>15</sup> Stereotypes that those with mental health problems are inherently dangerous, incapable, or immoral can lead to discriminatory behaviors, like missed job or educational opportunities and social exclusion.<sup>15</sup> For example, a societal stereotype of individuals with depression might be that they are lazy, have few goals, and are incapable of achieving those goals. This negative judgment of others that can result in social ostracism is called stigma.<sup>15</sup> Prejudice would be believing in these stereotypes (e.g., *I agree, people with depression are lazy and I don't want to play on a team with them. They will put forth little effort and we will lose*).<sup>15</sup> Such biases can result in discrimination, or actions that prevent social advancement by the afflicted group (e.g., *This soccer player has depression, so I will not let them play in games or involve them in team activities*).<sup>15</sup> If those in the outcast group learn to believe these stereotypes, they may begin to hold negative views toward themselves that lead to poor self-esteem, self-sabotaging behaviors, or a learned helplessness that can prevent social advancement (e.g., *Society sees people with depression as lazy. I agree, people with depression are lazy. I have depression. Therefore, I am lazy and cannot achieve my goals. No one else thinks I can either, so why try?*).<sup>15</sup> Negative judgment held toward oneself is termed self-stigma.<sup>20–22</sup>

“Help-seeking behavior” has become a popular term to describe intentional, planned behavior that involves seeking care from a healthcare service or professional.<sup>23</sup> Utilization of professional and interpersonal connections or resources to address one’s mental health (e.g., counseling, prescribed medication) is defined as mental health help-seeking behavior (HSB).<sup>15, 23–24</sup> Stigma is regarded as a well-known barrier to seeking mental health services.<sup>15</sup> Student-athletes may avoid HSB for fear of coaches or teammates viewing them as incapable, which could result in lack of playing time and/or social rejection.<sup>9, 25–27</sup> Even if these fears can be proven false, student-athletes’ consciousness of societal bias towards those with mental health problems can prevent HSB. The beliefs that an individual holds towards those with mental health problems (e.g., *People with depression are lazy*) is defined as personal stigma.<sup>15, 21, 24</sup> The interpretation of others’ personal stigmas is defined as perceived stigma (e.g., *Other people think people with depression are lazy*).<sup>15, 21, 24</sup> The internalization of personal and perceived stigmas can result in self-stigma.

It is largely unknown how student-athletes’ perceived stigma compares with the personal stigma of their peers or their own personal stigma in regard to HSB.<sup>24</sup> Results from a previous study comparing perceived and personal stigma found that student-athletes reported greater perceived stigma than personal stigma, and that student-athletes reported greater overall stigma than their non-athlete peers.<sup>24</sup> Student-athletes from a similar study reported less perceived stigma than non-athletes, though neither group differed in terms of HSB.<sup>28</sup> Athletes often cite perceived stigma and low mental health literacy as barriers to HSB.<sup>9, 25–27</sup> Past studies suggest that perceived benefits of seeking help and self-efficacy, both of which are directly influenced by perceived stigma and low mental health literacy, are important factors of help-seeking.<sup>28–30</sup> Help-seeking behavior has rarely been studied in relation to the larger body of work on mental health stigma in sport.<sup>9, 20, 24–27</sup> While Hillard et al. found a negative relationship between student-athletes with greater mental health stigma and likelihood of seeking professional help and another study demonstrated that athletes’ self-stigma was negatively related to HSB, none of the literature found discussed or surveyed relative barriers to HSB in congruence with perceived, personal, and self-levels of stigma in this population.<sup>31–32</sup>

The purpose of this study was to observe and describe student-athletes’ personal and perceived stigma in relation to HSB (Study 1). Participants completed an online survey that assessed their perceived stigma, personal stigma, self-stigma, present and past HSB, and athlete behaviors, with the goal of comparing perceived and personal stigma. A similarly conducted study from 2019 was analyzed (Study 2). Results from these studies may inform future hypotheses as well as methods to improve HSB among student-athletes. We hypothesize that student-athletes’ perceived stigma will be greater than their personal stigma.

## Study 1

### METHODS AND PROCEDURES

#### Participants

Twenty student-athletes (80% female) from a southeastern private university participated in this study between November and April of the 2020-21 academic year. All study participants were White, and sexual orientation was reported as follows: heterosexual (90%), bisexual (10%). The teams most represented were soccer (20%) and either Cross-Country and/or Track-and-Field athletes (25%) (see Supplementary Materials for demographic breakdown by sport). Inclusion criteria were: full-time student status (at least a 12-semester hour course load), between the ages of 18 and 24 years, and self-identified as having participated in NCAA varsity athletics during the past 12 months.

#### Measures

The Link’s Perceived Discrimination and Devaluation Scale (PDDS) is a 12-item survey that assesses one’s perceived stigma of individuals who have sought psychiatric help for mental health problems.<sup>21</sup> Responses are based on a 5-point Likert-scale, ranging from (1) *Totally Agree* to (5) *Totally Disagree*, and scores are added to a total score out of 60. A higher score on the PDDS reflects a greater perception that those with mental health problems will be discriminated against and devalued by the student-athlete peer

group. The PDDS is valid and reliable for student-athlete populations, and previous studies with student-athletes have modified the wording of the subject of the questions to fit the specific peer-group population.<sup>24</sup> Therefore, we employed these modifications. Participants ranked their level of agreement with statements such as, “Most of my fellow student-athletes would willingly accept someone who has received mental health treatment as a close friend.”

The Mental Health Literacy Scale (MHLS) is a 35-item questionnaire that assesses participants' knowledge, understanding, and stigma attributed to mental health.<sup>33</sup> The total score for the MHLS was determined by summing the scores to a total score out of a possible 175, with a minimum score of 35.

The Self-Stigma of Seeking Help Scale (SSOSH) is a 10-item instrument that assesses participants' self-stigma and self-esteem related to HSB.<sup>22</sup> Items are measured on a 5-point Likert scale with (1) meaning *Strongly Disagree* and (5) meaning *Strongly Agree*. The scale has been found to be reliable and valid.<sup>22</sup> Average responses to each item were averaged among all participants, where a higher score out of 5 indicated greater self-stigma.

A modified version of the 18-item Help-Seeking Questionnaire (HSQ) was used to assess participants' likelihood to seek help for a mental health problem, as well as any past help-seeking behaviors.<sup>34</sup> The first five questions assess participant's likelihood to seek help from a mental health professional, using a 7-point Likert-scale, ranging from (1) *Worthless* to (7) *Valuable*, (1) *Unpleasant* to (7) *Pleasant* (Item 1 only), (1) *Should Not* to (7) *Should* (Item 2), (1) *Disapprove* or (7) *Approve* (Item 3), or (1) *No Control* to (7) *Total Control* (Item 4). Questions 6 and 7 ask if and when the participant has ever received a mental health diagnosis. The remaining 11 questions require participants to reflect on any past experiences with mental health problems and related help-seeking behaviors they have exhibited. If they have received help in one area, participants are then asked to reveal who prompted them to seek out that resource (themselves, a loved one, or someone else), and to rank how helpful the resource was for their mental health.

The HSQ was scored by summing the responses to the first 5 questions to a total out of 35. The diagnosis questions were reported in the demographics table (see Supplementary Materials). For the third section of the HSQ, participant responses were assigned numerical values based on whether they had (1) or had not (0) used a particular resource. The reported average use for each mental health resource was the result of the proportion of those who stated that they had ever used the resource, out of the total number of participants who answered that question. Those proportions were averaged to get a total score for overall use of all mental health resources.

The Student-Athlete Role Behaviors Questionnaire (SRBQ) is an 8-item self-report instrument built to assess the behaviors associated with being a student-athlete (Lopez, 2008). Questions in this survey consider factors that have been shown to relate to depression, such as time commitment, destructive behaviors, performance potential, and roles. Items were scaled using a 7-point Likert scale ranging from (1) *Never* to (7) *Always* (Items 1 and 2) or from (1) *Strongly Disagree* to (7) *Strongly Agree* (Items 3 through 8). Answers were summed out of a possible 56.

The Feasibility Questionnaire is an ad-hoc, 5-item self-report instrument that assesses participant responses to questions about: difficulty completing the survey, pleasure experienced from completing the survey, and likelihood of suggesting or passing the survey along to another person. Participants select an answer choice on a 6-point Likert scale ranging from (1) *Strongly Disagree* to (2) *Strongly Agree*. Total scores were averaged and will be considered when refining the study design for a follow-up or future experiment.

#### *Procedures*

An interest email with a description of the study and link to the online screening survey was sent to all student-athletes. Participant names and emails were gathered from the roster lists for each team listed on the publicly available University Athletics website (<https://elonphoenix.com/>). Those interested in the study were asked to complete a screening survey to determine eligibility. The study protocol was approved by the Institutional Review Board of Elon University (Elon, NC).

Eligible participants were sent an email with a unique ID number, as well as a link to the online Informed Consent and Official Student-Athlete Mental Health Qualtrics Survey (Qualtrics, Provo, UT and Seattle, WA). After signing consent, participants completed an approximately 25–30-minute Qualtrics Survey (Qualtrics, Provo, UT and Seattle, WA), which included a Demographic Survey, PDDS, MHLS, SSOSH, HSQ, SRBQ, and a Feasibility Survey. All survey responses were collected and stored in a Qualtrics account (Qualtrics, Provo, UT, and Seattle, WA). Participants received a link to the project poster presentation after the study was completed.

**RESULTS**

**Table 1** shows the summed average scores for all measures. After summing the individual responses across all of the PDDS questions, Study 1 participants had a total perceived stigma rating of  $38.60 \pm 3.86$ . Average response values to individual items revealed that most participants selected mainly 4 or 5 on a 5-point Likert scale. For example, student-athletes in Study 1 averaged 4.70, indicating that participants *Totally Disagree* with the statement, “most of my fellow student-athletes would willingly accept someone who has received mental health treatment as a close friend” (see Supplementary Materials).

| Measure                                | Study 1 M (SD)    |
|----------------------------------------|-------------------|
| Perceived stigma (PDDS)                | $38.60 \pm 3.86$  |
| Personal stigma (MHLS)                 | $107.05 \pm 9.09$ |
| Self-stigma (SSOSH)                    | $3.20 \pm 0.79$   |
| Likelihood to seek help (HSQ)          | $12.95 \pm 2.86$  |
| Overall Use of MH Resources (HSQ)      | $0.32 \pm 0.33$   |
| Student-athlete behavior (SRBQ)        | $27.35 \pm 7.41$  |
| Satisfaction with survey (Feasibility) | $23.95 \pm 4.10$  |

**Table 1.** Summed averages and standard deviations for PDDS, MHLS, SSOSH, HSQ, SRBQ, and Feasibility questionnaires.

Study 1 participants’ MHLS score was around  $107.05 \pm 9.09$ . There were four section themes for the MHLS, including two sections for personal stigma. One section gave a score for personal beliefs about mental health and those with mental health problems. The average score for this section was  $38.75 \pm 4.08$  out of a potential 45. The other section gave a score for an individual’s willingness to interact with those who have a mental health problem. The average score for this section was  $30.70 \pm 4.67$  out of a potential 35.

Based on the magnitude of response values to individual items on the PDDS compared with the MHLS, Study 1 participants were determined to have greater perceived stigma than personal stigma.

The total average SSOSH score for Study 1 was  $3.20 \pm 0.79$ .

The average participant score for Study 1 participants on the first 5 items of the HSQ was  $12.95 \pm 2.86$ . About 35% of Study 1 participants reported a prior mental health diagnosis in the demographics questionnaire. The average use of all resources for Study 1 participants was  $0.32 \pm 0.33$ , with the most used resources being “Individual Therapy/Counseling” (0.91) and “Medication from your Primary Care Physician” (0.64). Of those who endorsed seeking help, the most common stakeholders were either “my loved ones” or themselves (“I did”). NCAA Division I student-athletes reflected low perceived value, pleasantness, social approval, and level of control over their prospective HSB.

The total average SRBQ score for Study 1 participants was  $27.35 \pm 7.41$ . At least half of participants reported in the SRBQ feeling as though involvement in collegiate athletics takes away from their free time, academic potential, and causes suffering in other areas of life. About three-quarters of participants (0.75) *Agree* or *Strongly Agree* to engaging in self-destructive behaviors like binge-drinking, drug use, physical or verbal altercations, self-mutilation, or cutting to cope with their emotions (Question 5). It is important to note that specific modalities of self-destructive behaviors participated in were not identified through this survey.

Around half of the participants reported that they either *Somewhat Agreed*, *Agreed*, or *Strongly Agreed* that they could hide having a mental health problem from their coaches and teammates (Question 8).

**Study 2**

**METHODS AND PROCEDURES**

*Participants*

PDDS and HSQ data from 54 student-athletes (83% female) was collected from the same private university in 2019. The majority of participants were White (83%), Black/African American (5%), and mixed race (12%) (see Supplementary Materials for detailed breakdown). Sexual orientation was: heterosexual (91%), bisexual (6%), homosexual (4%), other (2%). Approximately 28% of Study 2 participants were soccer athletes, while 19% of players reported being from “other” sports (see Supplementary Materials for demographic breakdown by sport). This unpublished dataset had a similar demographic makeup to Study 1 and could reduce the chance of bias within our results.

*Measures*

The only measures from Study 2 discussed in this paper were the PDDS and HSQ (see Study 1 Measures).

*Procedures*

A single email with a link to a Qualtrics survey was sent to all student-athletes at the university. Only the PDDS and HSQ are described in this paper. It should be noted that the PDDS used in Study 2 maintained the “Most people” phrasing of the original questionnaire.<sup>18</sup>

**RESULTS**

**Table 2** shows Study 2 summed average scores for PDDS and HSQ. Study 2 participants had a total perceived stigma rating of  $40.81 \pm 2.76$ . The average participant score for Study 2 participants on the first 5 items of the HSQ was  $19.52 \pm 2.58$ . The HSQ used in Study 2 did not include mental health diagnosis questions, but demographics revealed that at least 41% participants had received a previous mental health diagnosis. Study 2 participants’ average use of all resources was  $0.15 \pm 0.20$ , with the most used resources being “Individual Therapy/Counseling” (0.51) and “Consulting Family/Friends” (0.49).

| Measure                           | Study 2<br>M (SD) |
|-----------------------------------|-------------------|
| Perceived stigma (PDDS)           | $40.81 \pm 2.76$  |
| Likelihood to seek help (HSQ)     | $19.52 \pm 2.58$  |
| Overall Use of MH Resources (HSQ) | $0.15 \pm 0.20$   |

**Table 2.** Summed averages and standard deviations for PDDS and HSQ.

**DISCUSSION**

The purpose of this study was to describe athletes’ perceived stigma and personal stigma in relation to HSB. NCAA Division I student-athletes demonstrated higher levels of perceived stigma than personal stigma, about average mental health literacy, high self-stigma, and low HSB. No notable differences were found between those with or without reported mental health diagnoses in either dataset, amongst all questionnaires. Our results strongly reflect the current literature. It would make sense that our student-athlete population would avoid HSB if they believe that being open about mental health problems will lead to rejection from their peers, as indicated by high perceived stigma scores.

A previous study found a strong relationship between student-athlete role behavior and outward expression of depression.<sup>35</sup> Results noted that student-athletes were likely to reject treatment, express low perceived need to change, and low motivation to seek help.<sup>35</sup> It is concerning that the majority of Study 1 athletes regularly engage in “self-destructive” behaviors, including binge-drinking, drug use, physical or verbal altercations, self-mutilation, or cutting. Self-destructive behaviors are often coping mechanisms for poor mental health but may not be indicative of a diagnosable mental health problem.<sup>3, 36</sup> Since the survey generalizes self-destructive behaviors, it is unclear specifically what type(s) of self-harm is being done.

Sullivan et al. discovered that the average MHLS score for athletic staff resembled that of student-athletes at around 131.48, which was deemed “poor.”<sup>37</sup> Study 1 student-athletes scored lower than this norm (107.05), and by that standard demonstrated

poor mental health literacy. Though the MHLS has no official ranking system, Study 1 student-athletes scored above the minimum 35 score on the MHLS and just greater than the mean score, suggesting about average or slightly above average mental health literacy.<sup>33</sup> More work needs to be done to eliminate discrepancies in scaling the MHLS, specifically in student-athlete populations. Higher mental health literacy is related to greater HSB, so Study 1 student-athletes may demonstrate lower intentions to seek help, as reflected in the HSQ results.<sup>33</sup> Despite lower mental health literacy, it is encouraging that Study 1 student-athletes scored over  $30.70 \pm 4.67$  out of 35 on the MHLS sections referencing personal stigma. As supported by the SSOSH data, more often than not, NCAA Division I student-athletes hold greater self-stigma around HSB. Players that are more accepting of those with mental health problems (e.g., have low personal stigma) may be able to reduce the level of fear surrounding HSB.

Literature has found that, besides direct family members, student-athletes are more likely to partake in HSB if referred by a coach than a teammate or peer.<sup>11, 38</sup> As student-athletes are less likely to interact with family on a daily basis compared with coaches or teammates, coach attitudes toward mental health are extremely influential for student-athletes.<sup>2, 11, 13, 38–40</sup> The fact that athletes feel capable of hiding mental health problems from team members may be explained by a combination of factors like stigma, poor team cohesion or relationships, player family history and culture, and perceived coach attitudes.<sup>11, 41–43</sup> Though few studies have explored nondisclosure in terms of mental health, recent research on concussion symptom reporting demonstrated that greater concussion knowledge was associated with greater nondisclosure, and that student-athletes were less likely to report symptoms in high-stakes situations.<sup>44</sup> Similar contexts may influence the desire for athletes to disclose symptoms of mental health problems. Future hypotheses could test athlete-stakeholder relationships.

We limited our study to focus on student-athletes alone and did not include coaches, athletic trainers, and other stakeholders. Improving coach mental health literacy, awareness of student-athletes' perceptions of HSB, and communication with players may be important steps in improving athletes' HSB.<sup>11, 13, 39–40</sup> Given that student-athletes endorse HSB when referred by family or themselves on the HSQ and they are likely to spend most hours with coaches and teammates, next steps should involve coach-athlete interventions that aim to improve mental health literacy, reduce stigma, and generally improve HSB. Successful mental health interventions have incorporated knowledge and self-efficacy training with both athletes and training staff to boost mental health awareness.<sup>28–30, 45</sup> A recent study that put athletes, coaches, and team captains through mental health training with a focus on social support and coping resulted in improved athletic coping skills and reduced anxiety amongst players.<sup>45</sup> Studies using brief educational presentations have gotten positive feedback from athletes.<sup>46–47</sup> While not all interventions yielded significant increases in immediate help-seeking attitudes and behavior relative to controls, greater increases in HSB could be found post-intervention.<sup>48</sup> Generally, student-athletes are more likely to seek help for a mental health problem after participating in mental health literacy and HSB interventions.<sup>8, 45, 47–48</sup>

This was an exploratory study where exclusion criteria were kept minimal to allow for as large a sample size as possible. Because the Study 1 sample size was demographically homogeneous and small ( $n = 20$ ), there was not enough power in the sample to justify statistical tests that would explore differences between variables, both in Studies 1 and 2. For this reason, we did not control for mental health diagnoses during statistical analysis. This study should be repeated with a larger, more representative sample. For example, after scoring the PDDS and HSQ from both studies, it appears that student-athletes from Study 2 demonstrate lower levels of perceived stigma (PDDS) and a higher HSB (HSQ). Without data to confirm, we theorize that these discrepancies may be attributed to any of the following factors: sample size, the time at which the participants took the assessment (e.g., pre- vs. mid-pandemic), and demographic differences.

Another limitation to combining datasets was the timing at which each survey was conducted. Study 1 was open between October of 2020 and April of 2021. This overlapped with the COVID-19 global pandemic, in which the majority of university operations were conducted virtually, and many varsity sports were interrupted or altered.<sup>5, 49–50</sup> Study 2 took place in 2019, before the pandemic. The COVID-19 pandemic is a global event which has placed varying degrees of stress on all individuals and has increased the mental health burden worldwide.<sup>4, 6, 51</sup> It is possible that the responses given by Study 1 student-athletes were influenced by their experiences while living through a global pandemic.<sup>52–53</sup>

## CONCLUSIONS

This pilot study investigated differences in personal and perceived stigma in NCAA Division I student-athletes in relation to HSB. Student-athletes exhibited higher levels of perceived stigma than personal stigma, about average mental health literacy, high self-stigma, and low HSB. Despite reporting less personal stigma, student-athletes expressed little desire to seek help for their own mental health. Future studies could examine which type(s) of stigma contribute most significantly to HSB. Our results strongly reflect the current literature, which may inform future mental health interventions geared toward lowering stigma and increasing mental health literacy.

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### ABOUT STUDENT AUTHORS

**Emma McCabe (she/her/hers)** graduated with a bachelor's in exercise science with minors in biology and neuroscience from Elon University, NC in May 2021. During her undergraduate career, she performed concussion testing and original research with Dr. Caroline Ketcham and Dr. Eric Hall in Elon BrainCARE, exploring the relationship between nutrition and both mental and cognitive health. She is currently a postbaccalaureate research fellow at the National Institute on Alcohol Abuse and Alcoholism (NIAAA) in the Human Psychopharmacology (HP) Lab under Dr. Vijay Ramchandani, studying determinants of alcohol use and misuse in clinical populations. Her postbaccalaureate research and manuscript under review (2022) examines latent class endorsement of positive coping behaviors during the COVID-19 pandemic and associations with alcohol-related and mental health outcomes. Emma's research interests are to learn motivations and barriers to health behaviors like physical activity, diet, and help-seeking behavior, and how health behaviors influence mental and physical health outcomes. She hopes this work will inform interventions that make positive lifestyle choices more accessible and sustainable for various populations.

**Sarah DeSordi (she/her/hers)** graduated from Elon University in 2021 with a BS in exercise science and dance science and a BFA in dance performance and choreography. Her undergraduate years were devoted to budding different paths of intersection between exercise science and dance. She did this by working as a part of the anatomy teaching assistant program, through nutrition and personal training internships, and pursuing a Pilates certification. Sarah continues to explore her interests in holistic wellness and human performance working as a Pilates instructor and freelance dancer, hoping to share her education and experiences with those she meets along the way.

### PRESS SUMMARY

Student-athletes are more likely to develop mental health problems than the general population. Pressure to perform results in athletes playing through both physical injuries and mental health problems. Despite the high number of athletes who report needing mental health support, fewer than half seek out mental health services. Research has identified stigma as one of the largest barriers to mental health help-seeking behavior (HSB). Though stigma has been discussed in sports culture, few studies have focused on how different types of stigmas relate to HSB in student-athletes. The purpose of this study was to observe and describe student-athletes' perceived stigma (e.g., what others think) and personal stigma (e.g., what the individual thinks) in relation to HSB. N=20 athletes completed an online Qualtrics Survey, which included Link's Perceived Discrimination and Devaluation Scale, Mental Health Literacy Scale, Self-Stigma of Seeking Help Scale, Help Seeking Questionnaire, and Student-Athlete Role Behaviors Questionnaire. Results from this study may help develop mental health interventions to improve mental health HSB among student-athletes.