

2026 Update: Inter-Association Consensus Statement on Recommendations in Developing a Plan for Recognition and Referral of Student-Athletes with Psychological Concerns at the Collegiate Level

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Objective: To provide athletic trainers, team physicians, and mental health professionals working with student-athletes at the collegiate level updated information from the 2013 NATA Inter-Association Consensus Statement Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Collegiate Level. Specific areas of updating include information enhancement in antecedents that may challenge student-athletes mental health and wellness, new information for consideration in developing in-house student-athlete counseling team and managing student-athlete mental health crisis.

Background: Intercollegiate student-athletes, athletic trainers, team physicians, and mental health professionals working with student-athletes have benefit-

ted from the 2013 NATA Inter-Association Consensus Statement Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Collegiate Level for over a decade. Knowledge gains and additional considerations that may affect a student-athlete participating at the collegiate level warrant updating the original 2013 Consensus Statement. The additional information in the Updated 2026 Consensus Statement will address factors that may impact a student-athlete's mental health and identify risks and signs of psychological concerns.

Recommendations: These recommendations are intended to update the 2013 NATA Inter-Association Consensus Statement Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Collegiate Level with new

decade and to better prepare athletic trainers, team physicians, and mental health care professionals who collaborate with the sports medicine staff in providing enhancements to recognize and refer student-athletes with psychological concerns at the collegiate level for evaluation and care.

Key Words: psychological concerns, antecedents of mental health challenges, recognition, referral

Key Points

- Data reports that mental health disorders in the United States, the general college student in the United States, and intercollegiate student-athletes exist to varying levels of prevalence and severity that the athletic trainer, team physician, and mental health professional working with collegiate student-athletes need to be aware of.
- Some collegiate student-athletes may have or are experiencing antecedents of risk to their mental health and wellness as would any young adult in the United States which may make them susceptible for a psychological concern
- Suicide is the second leading cause of death for intercollegiate student-athletes
- There are multiple circumstances that a student-athlete experience that may challenge their mental health and wellness that the athletic trainer, team physician, and mental health professional should be aware of and plan for in caring for student-athletes
- Assessment strategies to detect mental health disorders in student-athletes
- Developing an in-house athlete counseling service or elements of collaboration with on-campus counseling centers working with student-athletes and referral strategies to help the student-athlete access services
- Student-athlete mental health emergencies and return to participation following a crisis strategy
- Mental health educational considerations for all stakeholders to lessen stigma and offer support
- A review of the 2024 NCAA Mental Health Best Practices: Understanding and Supporting Student-Athlete Mental Health (2nd Edition), of which all NCAA member institutions are mandated to follow by November 2025.
- Risk management and legal review of responsibilities and confidentiality for institutional legal counsels to consider when putting together the psychological concerns policy
- Stepwise approach to building an institution's student-athlete psychological concerns policy

In 2013, the National Athletic Trainers' Association (NATA) released the industry's first comprehensive guide on student-athlete mental health, the Inter-Association Consensus Statement: Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Collegiate Level.¹ This was followed two years later by a companion consensus statement to address psychological concerns in the secondary school athlete.² The collegiate student-athlete consensus statement was used by the NCAA in 2014 as a guide for developing a plan to recognize and refer student-athletes with psy-

chological concerns at the collegiate level.³ This 2013 consensus statement offered considerations in the areas of recognition and referral of psychological concerns in student-athletes for athletic trainers, team physicians, mental health care professionals, and athletics administration in developing their respective student-athletes psychological concerns plan. This 2026 updated consensus statement will reiterate key elements of that 2013 consensus statement, update data on mental health disorders, and offer new information relative to factors affecting student-athletes that may make them vulnerable for developing a mental health concern and/

or exacerbating a present mental health disorder.

The full range of mental health concerns found in the general student population can also be found in student-athletes attending that university or college. Student-athletes, like all college students, are adapting to a new environment, and are often newly responsible for managing their own time. They face new challenges; attempting to meet the demands of college coursework, exploring their new-found freedom, and making choices regarding their personal behavior regarding sexuality, alcohol, and drug use.¹ Participation in intercollegiate athletics imposes additional demands and stressors on student-athletes.¹ The typical day of a student-athlete is fully scheduled, whether they are in or out of season. The demands on their time are significant, including classes, tutors, study table, meetings with instructors, class projects, conditioning, practice sessions, intercollegiate competitions, and treatment and rehabilitation time in the athletic training room, not to mention community service and media interviews. These time and effort commitments leave little or no personal or private time for the student-athlete. These commitments may add additional stress to the student-athlete not found in the general student population.¹

Many student-athletes define themselves by their identity as an athlete.¹ Threats to that identity may come in the form of a struggling performance level, injuries, conflicts with coaches and teammates, or simply losing the passion for playing their sport.¹ These challenges and other associated factors may put the student-athlete in a position to experience a psychological issue, or exacerbate an existing mental health concern.^{1,2}

Studies are starting to reveal the growing prevalence in the types, severity, and percentage of mental illnesses in young adults age 18-25, the same age group of college students and student-athletes.¹ Given the overall NCAA student-athlete participation rates - 520,000 active student-athletes as of 2022⁴ - the prospect of encountering a student-athlete, or multiple student-athletes, with a psychological concern within an athletic department is a certainty. The goal of this Consensus Statement is to provide recommendations on developing a plan to address the psychological concerns of student-athletes at the collegiate level.

Recommendations from this 2026 Updated Consensus Statement will provide data and guidance on young adult mental disorders, antecedents that may challenge a student-athlete's mental health and wellness, stressors unique to being a student-athlete, recognition of be-

haviors to monitor, suicide ideology concerns, critical incident management planning, special circumstances faced by student-athletes which may impact their psychological health, referral systems that can be established in the intercollegiate setting to assist student-athletes with psychological concerns, risk management and legal considerations in developing a plan, and steps to consider when initiating the psychological concerns plan to university and athletic administration through the completion of the plan. The inter-association work group includes representatives across athletic training, medical, and mental health professions, along with two attorneys experienced in sports medicine and health related litigation. This multidisciplinary group of professionals includes athletic training, general medicine physicians, mental health care professionals, university athletic counseling services, critical incident stress management, and the legal profession.

Recommendations of the 2026 Updated Consensus Statement are directed toward the athletic health care team, athletic department administration and staff, and university administration. This includes athletic trainers, team physicians, mental health professionals working with collegiate student-athletes within an athletic department, athletic department administrators, university administrators such as the Office of Student Affairs, Risk Management, General Counsel, and university counseling services. *It is imperative to remember that the student-athlete is first and foremost, a student of the university, and that the inclusion and collaboration with university departments is a must.*

Two critical points must be established in this Consensus Statement. First, the term "Psychological Concern" is used instead of "Mental Illness" in the title of the Consensus Statement. This is because only credentialed mental health care professionals have the legal authority to diagnose and treat a mental illness. Still, non-credentialed personnel can still identify factors that raise the concern of psychological issues, and still must be on the alert for them, thus the term "Psychological Concerns" was selected for the Consensus Statement. This leads to the second critical point to be established in the 2025 Updated Consensus Statement: while many kinds of professionals may raise concerns, only credentialed, licensed mental health care professionals are to legally evaluate, diagnose, treat, and classify a student-athlete for a mental illness. It is up to the credentialed mental health care professional to perform that medical-legal duty, not a non-credentialed individual, no matter how caring that person may be. This 2026 Updated Con-

sensus Statement was produced to inform the readers on recommendations on developing a plan to have a great appreciation for the antecedents that challenge the mental wellness of collegiate student-athletes, recognize potential psychological concerns in intercollegiate student-athletes, and establish an effective mechanism on referring the student-athlete into the mental health care system for the credentialed mental health care professional to assess and treat. This 2026 Updated Consensus Statement does not make recommendations in mental illness evaluation or care. Rather, this 2026 Updated Consensus Statement was developed to assist the athletic trainer, in collaboration with the team physician, athletic department, and university administrations, in facilitating the appreciation for factors that put a student-athlete's mental health at risk while recognizing, the behaviors that suggest a referral for an evaluation and care of the student-athlete suspected of a psychological concern by credentialed mental health care professionals.

Throughout this 2026 Updated Consensus Statement, the terms “psychological” and “mental” are used; various authors in both the text and in literature citations choose to use one or the other term. While the terms are synonymous, the focus of the 2026 Updated Consensus Statement is of recognition and referral, not treatment. Treatment is left to the credentialed mental health care professional. An additional consideration for the athletic trainer, coach, or administrator when recognizing and referring a student-athlete for a potential psychological concern is to discuss the student-athlete's mental health “issue”, “problem”, or “illness”, rather than a mental health “disorder”. The stigmatization that accompanies those suffering from a mental health “disorder” prevents many student-athletes, like those in the general population, from coming forward to receive assistance. It is recommended that those involved with student-athletes also refrain from using that term, or slang term for those exhibiting potential psychological concerns.

The recommendations in this 2026 Updated Consensus Statement utilize the Strength of Recommendation (SOR) Taxonomy criterion scale proposed by the American Academy of Family Physicians based on the highest quality of evidence available.⁵ A letter characterizes the quality, quantity, and consistency of evidence found in the available literature supporting a particular recommendation⁵:

A: means the recommendation is based on consistent and good-quality patient-oriented evidence;

B: means the recommendation is based on inconsistent or limited-quality patient-oriented evidence;

C: means the recommendation is based on consensus, usual practice, opinion, disease-oriented evidence, or case series for studies of diagnosis, treatment, prevention, or screening.

While this 2026 Updated Consensus Statement utilizes SORT level C evidence for best practices, the educational component of mental illness in young adults is based on SORT level A and B evidence. The SOR scores are provided in the Executive Summary section below.

EXECUTIVE SUMMARY

The purpose of the 2026 Updated Consensus Statement, also referred to as “The Plan”, is for the reader to take the information provided and develop or update their student-athlete mental health and wellness plan as part of a comprehensive sports medicine health care program. The Plan is broken into two sections, (1) recognition of psychological concerns, and (2) referral and action once the student-athlete self-reports or is identified for meeting criteria for a potential mental health challenge.

RECOGNITION

Review of Mental Disorders in Young Adults, College Student, and Intercollegiate Student-Athletes

1. The Plan for Recognition and Referral of Student-Athletes with Psychological Concerns (also known as the “Plan”) includes data on prevalence of mental disorders in American young adults, including the definition of a mental disorder per the American Psychiatric Association's Diagnostic and statistical manual of Mental Disorders.¹⁻⁶ SOR: A

2. The Plan reviews data on the comorbidity of mental disorders and the risk factors in developing mental disorders in adolescents and young adults.⁷⁻¹⁷ SOR: A

3. The Plan provides data on the severity of mental disorders in college student population.^{18,19} SOR: A

4. The Plan reviews data on the prevalence and severity of mental disorders reported in collegiate

student-athletes.²⁰⁻³³ SOR: A

Review of Antecedents of Risk to a Student-Athlete's Mental Health and Wellness

5. The Plan discusses the biopsychosocial elements of an individual.³⁴⁻⁴⁰ SOR: A

6. The plan outlines the Social Determinants of Health that may affect an individual's mental health.⁴¹⁻⁴⁴ SOR: A

7. The Plan discussed the role Adverse Childhood Experiences (ACEs) may have on developing mental health disorders for those that experience a significant or multiple ACEs.⁴⁵⁻⁶⁰ SOR: A

8. The Plan discusses the impact that traumatic experiences, sexual trauma, and PTSD following injury have on developing a mental health disorder.⁶¹⁻¹⁰⁴ SOR: A

9. The Plan outlines substance use, in particular updated information on the effects of marijuana uses by student-athletes.¹⁰⁵⁻¹²⁶ SOR: A

10. The Plan includes an outline of mental health challenges faced by social categories, particularly sexual minority student-athletes.¹²⁷⁻¹⁵⁷ SOR: A

11. The Plan discusses the role mental health stigma has in the hesitancy to seek psychological help.¹⁵⁸⁻¹⁶² SOR: A

12. The Plan discusses the role social media has in the mental health challenges of consumers.¹⁶³⁻¹⁶⁵ SOR: A

Circumstances that May Challenge the Mental Health and Wellness of a Student-Athlete

13. The Plan outlines the stressors of being a collegiate student-athlete.¹⁶⁶⁻¹⁹² SOR: A

14. The Plan discusses the role of athletic identity in a student-athlete's mental health.¹⁹³⁻²⁰⁵ SOR: A

15. The Plan Discusses Adjustment Disorder some athlete's experience.²⁰⁶⁻²¹³ SOR: A

16. The Plan discusses the signs and symptoms of athletic burnout.²¹⁴⁻²²¹ SOR: A

17. The Plan discusses the impact of Name, Image, and Likeness (NIL), Revenue Sharing and the Transfer Portal on the student-athlete mental health and wellness.²²²⁻²²³ SOR: A

18. The Plan reviews the psychological response to injury and returns to participation considerations of an

injured student-athlete.²²⁴⁻²⁴⁵ SOR: A

19. The Plan provides updated information about the mental health challenges faced by a student-athlete following a concussion.²⁴⁶⁻²⁵⁸ SOR: A

20. The Plan will review the impact of ADHD and medication used by a student-athlete.^{259,260} SOR: A

21. The Plan will review eating disorders' considerations.^{261,262} SOR: A

22. The Plan will discuss the mental impact of the end of a playing career on a student-athlete.²⁶³⁻²⁷² SOR: A

23. The Plan will outline the mental health challenges faced by a student-athlete who has been medically disqualified from sport.²⁷³⁻²⁸³ SOR: A

24. The Plan will discuss the mental implications of sports gambling that a student-athlete maybe engaged in.²⁸⁴⁻²⁹² SOR: A

Assessment Strategies

25. The Plan will discuss the role of Pre-Participation and/or Mental Health Incident Survey use.²⁹³⁻³⁰² SOR: A, B

26. The Plan will list Behaviors to Monitor, including sub-clinical considerations, when recognizing potential psychological concerns in student-athletes.^{1,2} SOR: A, B, C

27. The Plan will outline suicide ideology and potential assessment screening tools.³⁰³⁻³¹⁷ SOR: A

28. The Plan will discuss suggestions for survivors of death by suicide by others.³¹⁸⁻³²² SOR: A

29. The Plan will provide considerations when approaching a student-athlete with concern for that student-athlete's mental health and wellness. This section includes ethical considerations, therapeutic alliance, mental status examinations, and self-care considerations for professionals working with student-athletes.³²³⁻³⁵⁷ SOR: A, B, C

30. The Plan will discuss the role of team physicians in student-athlete mental health and wellness assessment and care and referral for psychological services.³⁵⁸⁻³⁷¹ SOR: A, C

REFERRAL and ACTION

31. The Plan will outline considerations in developing an Athletic Counseling Team.³⁶³ SOR: C

32. The Plan will discuss the use of campus counseling services in the event in-house Athletic Counseling Team is not established.³⁷²⁻³⁷⁵ SOR: C

33. The Plan will outline the referral process for a student-athlete seeking assistance with their psychological concern.^{1,376-381} SOR: C

34. The Plan will outline steps in a student-athlete mental health emergency plan and return to participation following a mental health emergency.^{382,383} SOR: A, B, C

35. The Plan will discuss and outline steps to develop a critical incident plan following a student-athlete mental health crisis.³⁸⁴⁻³⁹⁵ SOR: A, B, C

36. The Plan will offer considerations in developing an education on mental health for student-athletes, coaches, and athletic trainers.^{363, 396-406} SOR: A, B, C

37. The Plan will provide an in-depth review of Intercollegiate Organizations Recommendations on Student-Athlete Mental Health and Wellness.⁴⁰⁷⁻⁴¹² SOR: A, B, C

38. The Plan will discuss risk management and legal considerations in developing a student-athlete psychological concerns plan.⁴¹³⁻⁴¹⁵ SOR: B, C

39. The Plan will outline considerations in developing an institution's respective student-athlete Psychological concerns plan.¹ SOR: C

BACKGROUND

The American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition Text Revision* (DSM-5-TR) states that "a mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotional regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities."⁶ The definition of a

mental health disorder was developed for 1) clinical use, 2) the health of the public, and 3) research purposes.⁶ The DSM-5-TR definition of a mental disorder further states what IT IS NOT. A mental disorder isn't "an expectable and culturally approved response to a common stressor or loss such as the death of a loved one." A mental health diagnosis should have clinical utility. The diagnosis should help the clinician determine prognosis, plans for treatment, and potential outcomes for treatment for their patients.⁶ It must be kept in mind that merely having a diagnosis of a mental health disorder is not equivalent to the need for treatment. The need for treatment for a mental health disorder is a complex decision left to the mental health clinician who takes into consideration a myriad of factors: 1) symptom severity, 2) symptom salience (e.g., suicide ideology), 3) the individual's distress (mental pain) associated with mental health disorder symptoms, 4) any disability related to the individual's symptoms, 5) risk and benefits to available treatments, and, 6) any additional factors that may complicate other illnesses.⁶ Clinicians may encounter individuals who symptoms do not meet the full criteria for a mental health disorder but who clearly demonstrate a need for treatment.⁶

As the DSM-5-TR outlines, the evaluation and treatment of a mental disorder is a complex, multi-factored process that has many mitigating circumstances that required only professionally trained mental health professionals to undertake. Only those professionals credentialed to perform these responsibilities should be assessing and treating individuals with suspected mental disorders. However, the non-mental health-credentialed professionals such as an athletic trainer and team physician are in enhanced positions to observe, recognize, approach the student-athlete with a concern, and refer that individual student-athlete into the mental health system at their institution.

RECOGNITION

Mental Health Data

To consider mental health challenges that intercollegiate student-athletes face, it is instructive to review recent mental health data in the United States. Below are three demographics of mental health data: the United States general population, general college student population, and the intercollegiate student-athlete population.

United States General Population

In 2023 among adults aged 18 or older, 22.8% to 23.08% (58-60 million people) experienced any mental illness (AMI) in the United States.^{7,8} The demographic with the highest percentage of AMI in 2023 was young adults aged 18 to 25 (33.8% or 11.5 million), followed by adults aged 26 to 49 (29.2% or 30.3 million people), followed by adults aged 50 or older with 14.1% (16.9 million people).⁷ Additionally, multiracial adults were more likely to have AMI at 36.7% as compared with White people at 24.0%, American Indian or Alaska Native at 23.5%, Hispanic at 20.6%, Black at 19.4%, and Asian at 18.1%.⁷ Serious mental illness (SMI) (mental illnesses that resulted in serious functional impairment) in 2023 in adults was 5.7% (14.6 million people), with adults aged 18-25 having the highest percentage of SMI at 10.3% (3.5 million people).⁷

Major depression starts at an early age, usually during adolescence. In 2023, among adolescents aged 12-17, 18.1% (4.5 million adolescents) experienced a major depressive episode (MDE), with an additional 13.5% of adolescents experiencing an MDE with severe impairment (e.g., affecting doing chores at home, doing well in school or work, getting along with family members, or having a social life). Again, multiracial adolescents aged 12 to 17 had the highest percentage of MDE (24.4%) and MDE with severe impairment (19.6%), followed by Whites adolescents (19.6% for MDE and 14.7% for MDE with severe impairment). Asian adolescents reported in third with 13.7% of MDE, and Black adolescents reported fourth of MDE with severe impairment at 10%.⁷

Co-occurring serious mental illness (SMI) and substance use disorder (SUD) was also studied. Among adults 18 or older, 21% (54.1 million) had either an SMI or a SUD. Among the 14.6 million adults with SMI, half (6.8 million) had co-occurring SUD. Nearly one-third (32.1%) of young adults aged 18 to 25 in 2023 had either a SMI or a SUD. Adults aged 26 to 49 were second in total numbers of either an SMI and/or SUD with 26.5%, followed by adults aged 50 or older with either an SMI and/or SUD at 13.1%. Multiracial adults aged 18 or older had the highest percentages of either SMI or SUD at 34.1%, then by White (21.9%), Black (20.5%), Hispanic (19.5%), and Asian adults (11.8%). Multiracial adults aged 18 or older in 2023 (6.5%) were more likely to have co-occurring SMI and SUD as compared with White (2.9%), Hispanic (2.5%), Black (2.0%), American Indian or Alaska Native (1.3%), or Asian adults (0.8%).⁷ In 2022, 17.8% of adults in the United States had a SUD (45 million

people).⁸ Additionally, in 2022, 11.28% of adults had an alcohol use disorder⁸, with 9.41% of adults in the United States reported a drug use disorder, with marijuana being the most common substance identified for those with a drug use disorder at 6.9%.⁸

Among adults aged 18 or older in 2023, those with serious mental illness (SMI) or any mental illness (AMI) were more likely that those adults without mental illness to have used illicit drugs in the past year (51.9% for those adults with SMI, 42.4% for AMI, and only 21.0% for those adults without any mental illness). Marijuana use in 2023 revealed that those adults with SMI used the most often (47.1%), AMI adults used at 37.4%, and adults without mental illness used at a 18.6%. Young adults aged 18 to 25 who had co-occurring SMI and SUD in 2023 were 25.4% (1.8 million), followed by adults aged 26-49 at 3.9%, followed by age 50 and older at 0.8%.⁸

Comparing the recent mental health and drug use statistics to previous years, reported mental illness in the United States is incrementally rising. In 2012, The United States Substance Abuse & Mental Health Services Administration reported that 45.9 million American adults aged 18 or older, 20% of the survey population, experienced a mental illness in 2010⁹, as compared to 22-23% in 2024⁷. In the 2012 SAMSA report, the rate of mental illness was more than twice as high in those in the 18-25-year-old range at 29.9%⁹, which was nearly 4% lower than the 2024 report.⁷ From 2008 to 2018, 18- to 25-year-olds in the United States demonstrated the greatest increase of anxiety than any other age group.¹⁰

Studies of when mental health disorders start suggesting they initiate when a person is a child or adolescent. The most significantly persistent and impairing mental disorders found in adults are associated with onset of serious adversity during childhood or adolescence and also have a high comorbidity percentage (2 or more mental health disorders experienced at the same time).¹¹ Of adolescents aged 13 to 17 years who had experienced childhood adversity (e.g., parental maltreatment, parental loss, parental maladjustment, or economic hardship), 58.3% reported at least one childhood adversity, and 59.7% reported multiple childhood adversities. 28.2% of all onsets of psychiatric disorders in adults studied were associated with one or multiple childhood adversities.¹² Mental disorders are widespread, with serious cases found in a relatively small percentage of patients with high comorbidity.¹³ Additionally, more than half of adults with a mental health illness do not receive treatment (27 million U.S. adults), and that sixty percent of

youth with major depression do not receive any mental health treatment.¹⁴

Older children aged 12-17 years old were more likely to receive counseling compared to 5-11 years old children.¹⁵ Non-Hispanic white children were more likely than Hispanic or non-Hispanic Black children to have received any mental health counseling in the past year.¹⁵ From 2013 to 2015, U.S. adults needing mental health care services experienced a decrease in insurance coverage, with 24.4% of adults with serious psychological distress not receiving any mental health care.¹⁶ The lack of mental health care in athletes is also prevalent.¹⁷

United States College Student Population

In Spring 2024, the American College Health Association conducted a nationwide survey of college students and produced a report, National College Health Assessment Spring 2024 Executive Summary.¹⁸ The survey consisted of 103, 639 respondents, with a response rate of 11%. The responses were based on cisgender men (CM), cisgender women (CW), and Transgender/Non-conforming (T/NC) students. The following highlights were provided on the mental health of college students (including drug and alcohol use):

- 14.4% CM, 19.5% CW, and 39.7% T/NC reported serious psychological distress (scores of 13-24) on the Kessler 6 (K6) Non-Specific Psychological Distress Score (Range is 0-24) in the past 12 months
- 46.6% CM, 47.6% CW, and 63.5% T/NC students reported positive for loneliness (score 6-9) on the UCLA Loneliness Scale (ULS3) Score (Range is 3-9) in the past 12 months
- 6.7% CM, 9.5% CW, and 28.8% T/NC students reported intentional self-harm (cutting, burning, bruising, or otherwise injured themselves) in the past 12 months
- 21.0% CM, 24.2% CW, and 60.7% of T/NC students report positive screening for suicide (score of 7-18) of the Suicide Behavior Questionnaire-Revised (SBQR) Screening Score (Range is 3-18) in the past 12 months
- 2.5% CM, 1.7% CW, and 5.1% of T/CN students indicated they attempted suicide within the past 12 months
- In the 2024 survey, 64.1% CM, 80.6% CW, and 86.3% of T/NC students felt they experienced either moderate to high levels of stress over the past

30 days

- 21.6% CM, 37.9% CW, and 63.4% T/NC students received mental health services within the last 12 months
- 19.3% CM, 34.2% CW, and 60.5% T/NC students were prescribed medication for mental health condition. Most of those prescribed medication for mental health started before entering college
- 13.1% CM, 27.4% CW, and 52.8% T/NC students had counseling within the past year for mental health condition.
- 24.4 % CM, 43.5% CW, and 72.7% T/NC students reported they have received counseling for mental health condition. 17.5% CM, 31.9% CW, and 58.4% T/NC students started counseling before entering college, and 6.7% CM, 11.4% CW, and 13.9% T/NC students started counseling after entering college
- Procrastination as a negative impact on academic performance among all students led to problems or challenges in the past 12 months (other problems and challenges include: career, finances, faculty, family, intimate relationships, roommates, peers, personal appearance, death of someone close to me, bullying, cyberbullying, hazing, microaggressions, sexual harassment, discrimination). 45.1% of CM, 44.9% CW, and 59.4% T/NC students were academically negatively impacted by procrastination.
- 20.3% CM, 33.3% CW, and 51.2% T/NC students reported anxiety as negatively impacting their academic performance
- 14.6% CM, 21.4% CW, and 46.4% T/NC students reported depression as an impediment to academic performance
- 9.7% CM, 11.4% CW, and 30.8% T/NC students reported ADHD as an impediment to academic performance
- 1.5% CM, 3.6% CW, and 11.9% T/NC students reported PTSD as an impediment to academic performance
- 0.04% CM, 1.9% CW, and 4.3% T/NC students reported sexual assault as an impediment to academic performance.
- 65% CM, 70.8% CW, and 72.0% T/NC students reported consuming alcoholic beverages in the past

12 months

- Of those students that reported drinking alcohol in the past 12 months, 0.7% CM, 0.4% CW, and 0.8% of T/NC students considered suicide
- 37.6% CM, 40.5% CW, and 54.6% T/NC students reported using any form of cannabis in the past 12 months
- 11.7% CM, 8.1% CW, and 15.7% T/NC students reported using hallucinogens in the past 12 months
- 7.3% CM, 5.7% CW, and 8.1% T/NC students reported nonmedical use of prescription stimulants (e.g., Ritalin, Concerta, Dexedrine, Adderall, diet pills, etc.) in the past 12 months
- 5.0% CM, 3.0% CW, and 7.8% of T/NC students reported using inhalants (e.g., nitrous gas, glue, paint thinner, poppers) in the past 12 months
- 4.7% CM, 4.2% CW, and 6.7% of T/NC students reported nonmedical use of sedatives or sleeping pills (e.g., Valium, Ativan, Xanax, Klonopin, Librium, Rohypnol, GHB, etc.) in the past 12 months
- 4.0% CM, 2.8% CW, and 4.6% of T/NC students reported nonmedical use of prescription opioids in the past 12 months
- 3.0% CM, 2.2% CW, and 4.8% T/NC students reported they were in recovery from alcohol or other drug use in the past 12 months
- 12.8% of college students reported driving after having any alcohol in the last 30 days in the 2024 survey
- 29.7% of college students reported driving within 6 hours of using cannabis/marijuana in the last 30 days in the 2024 survey

The ACHA Spring 2024 Executive Summary reported that 53.9% CM, 51.1% CW, and 34.2% of T/NC felt that their health was a priority of their college/university. Contrast the rates of mental health statistics reported above with ongoing general physical ailments students reported in the 2024 ACHA survey:

- 13.7% CM, 16.4% CW, and 20.5% of T/NC students reported ongoing care for asthma
- 2.7% CM, 3.9% CW, and 3.8% T/NC students reported ongoing care for diabetes or pre-diabetes/insulin resistance

- 1.9% CM, 2.7% CW, and 4.6% of T/NC students reporting heart & valvular disorders
- 4.5% CM, 3.0% CW, and 4.0% of T/NC students reporting hypertension
- 2.5% CM, 6.2% CW, and 7.9% of T/NC students experiencing irritable bowel syndrome
- 5.4% CM, 15.1% CW, and 18.5% of T/NC students experiencing migraine headaches

Comparing general health with the mental health data from the 2024 ACHA report, it is evident that college students suffer from mental health issues at higher rates than general health concerns in 2024. Athletic trainers and team physicians' responsibilities primarily focus on physical concerns, but as the 2024 ACHA report reveals, more focus on mental health concerns should become a goal for sports medicine staff and mental health professionals working with intercollegiate student-athletes.

The Healthy Minds Network produced a report of the 2023-2024 academic year of mental health and related issues in college populations, The Healthy Minds Study 2023-2024.¹⁹ This web-based survey of currently enrolled students gathered data on key survey measures of mental health utilizing mental health surveys such as the PHQ-9 for depression and the GAD-7 for anxiety. The 2023-2024 Healthy Minds Study reported the following during the academic year¹⁹:

- 19% of students reported severe depressive symptoms
- 38% of students reported moderate or severe depressive symptoms
- 34% of students reported moderate or severe anxiety symptoms
- 26% of students reported non-suicidal self-injury in the past year
- 13% of students reported suicide ideology in the past year
- 6% of students reported developing a suicide plan in the past year
- 2% of students reported attempting suicide in the past year
- 50% of students reported lifetime diagnoses of

mental disorders

- 31% of students reported using psychiatric medications in the past year
- 36% of students reported using therapy/counseling in the past year
- 38% of students reported positive psychological well-being
- 41% of students reported the perceived public stigma that most people would think less of someone who has received mental health treatment

The Healthy Minds Study confirms that current mental health concerns found in the general population are also consistently found in college students. Additionally, mental disorders of depression and anxiety were reported higher in college students than the general population. The studies on college students reported above indicate that the general student population, a cohort that all college student-athletes are a member, are experiencing higher levels of stress and mental disorders than the general population. These results should factor in the need for planning to meet the unique needs of the student-athlete, who as a student may well be feeling stress and mental health challenges as a general student, and as an athlete with the unique stressors that are found in today's competitive environment. Next, there are mental health challenges that are faced uniquely by the intercollegiate student-athlete population that needs to be considered.

Intercollegiate Student-Athlete Population

A meta-analysis conducted with former and current elite athletes suggested the prevalence of mental health symptoms and disorders reported in athletes may be slightly higher than found in the general population.²⁰ Specific research into athlete mental health disorders reveal that 23.7% of athletes surveyed reported a clinically relevant level of depression, with 6.3% reporting severe levels of depression.²¹ One study revealed that athletes experience mental health conditions ranging from 19% alcohol abuse to 34% reporting symptoms of anxiety and depression.²² Student-athletes, despite having some protective factors, are an at-risk group for mental health disorders. This is due to the stressors of balancing multiple obligations in participation and academics.²³ There are a variety of sport-related and non-sport related factors that place a student-athlete at risk for mental health concerns.²⁴

One study²⁵ reported that the lifetime prevalence of any mental illness (AMI) in division I student-athletes at 14% for all athletes surveyed between 2011-2017, with male student-athletes rate at 14.2% and 13.6% for female student-athletes. Individual sport student-athletes reported a greater prevalence (17.2%) than for team sport student-athletes (11.8%) for AMI. Contact sport student-athletes reported the highest prevalence of any mental illness (AMI) at 16.4%. The study also reported a significant association between mental health conditions and all four major groups of injuries (upper extremities, lower extremities, axial skeleton, and concussions). Finally, the study reported that post-concussion depression occurred in 2% of all student-athletes sustaining a concussion.²⁵

A study of incoming Division I student-athletes from 2017-2021 reported that female student-athletes reported higher levels of anxiety and depression than male student-athletes, and that individual sport student-athletes reported higher levels of depression than team sport student-athletes.²⁶ In a study conducted with Division I student-athletes, the prevalence of depression was 21%, with freshmen, females, and student-athletes with self-reported pain associated with significant increased odds of experiencing symptoms of depression.²⁷ Another study reported in 2023 that 22.3% of student-athletes were at risk for depression, 12.5% for anxiety, and 8% for low self-esteem. The study also reported that there was a significant association for depression and anxiety together with female student-athletes.²⁸

Elite athletes are at a comparable risk for mental disorders relative to the general population, and elite athletes are at greater risk if they are approaching retirement, experiencing performance anxiety, or are injured. Elite athletes are vulnerable for a wide range of mental health disorders, including substance misuse, being a female, and participating in an individual sport. Elite athlete's mental health may be challenged by overtraining and burnout, intense public and media scrutiny, competitive factors at elite levels, injury, and non-sport factors.²⁹

There is some research on the effects the Covid-19 pandemic has had on the mental wellness of athletes. Studies are showing that the uncertainty of perceived Covid-19 threats has a negative impact on the mental health of athletes, including experiencing present and potential future high levels of anxiety³⁰, and that social isolation and social distancing is very detrimental to an athlete's mental health.^{31,32} Additionally, it has been reported that physically deconditioned adults reported higher levels of stress than physically conditioned

adults.³³

Athletic trainers, team physicians, and mental health professionals should be aware of mental health data and research as it is ever evolving. Several points of note stand out with the prevalence of mental health disorders in student-athletes that should be kept in the forefront:

1. Incoming student-athletes report higher mental health challenges when reporting to college, and continue to struggle during their academic years.
2. Female student-athletes report higher levels of anxiety and depression versus male student-athletes.
3. Elite athletes are also susceptible to mental health issues. Being an athlete doesn't provide immunity from mental health disorders or concerns.

Antecedents of Risk that May Challenge Student-Athlete Mental Health and Wellness

A major addition to the 2025 Update Consensus Statement is a significant review of “antecedents of risk” to an individual’s mental health and well-being. Enhancing the knowledge of these antecedents of risk to mental health is valuable for the athletic trainers and team physicians in their recognition of potential psychological concerns in student-athletes. Below are some highlights of considerable information contained in the full 2025 Updated Consensus Statement relative to antecedents of risk to mental health and well-being.

Athletic trainers, team physicians, and mental health professionals providing care to student-athletes should be aware of factors that the student-athlete may be impacted by that contribute to potential mental unwellness. Certainly, not all student-athletes may face and or be affected by the factors and stressors discussed below. However, research has reported over decades that the factors and stressors below have been associated with mental health disorders in the public and in student-athletes. Thus, whenever a student-athlete who reports or appears to be struggling with their mental health and wellness an exploration of these factors and stressors that may be contributing to their unwellness should be explored by the athletic trainer, team physician, and mental health professional working with student-athletes.

Biopsychosocial Elements

The biopsychosocial perspective of a person is divided into three elements, the biophysical, psychological, and social support.^{34,35} The biopsychosocial model bridges the gap between psychological and biological needs which in the past have been treated separately.³⁵ The biopsychosocial model first proposed by Dr. Engle postulates that the physical health, psychological, and social elements are influenced by each other, and that these elements of overall health influence the effectiveness of treatment.³⁵ If one or more biopsychosocial elements are compromised, the overall well-being of the individual and their ability to cope effectively is at risk.

The three basic dimensions for assessing behavior in the social environment are biophysical, psychological, and social, collectively known as a “biopsychosocial” perspective.³⁶ The biophysical dimension addresses the physical health and safety of a person.³⁶ The psychological dimension attends to the psychological determinants of cognition, memory, language, learning abilities, self-perception, reality base, emotional responses, and self-statements of a person.³⁶ Lastly, the social dimension is concerned with a person’s social knowledge of others, empathy, impulse control, emotional regulation, social problem-solving skills and coping skills.³⁶ The biopsychosocial element in analyzing and evaluating current models of assistance are relevant yet rarely considered in today’s social problem of mental health issues facing athletes. While the athlete at the intercollegiate level may face challenges to mental wellness like the general student body¹, the athlete is faced daily with biopsychosocial challenges that most general students do not experience. For example, in the biophysical dimension, student-athletes are routinely injured or overtrained, resulting in chronic inflammation and required physical treatment to remain functional to practice and compete. From a psychological dimension, the athlete is challenged to meet the high expectations of family, teammates, coaches and the media to constant stressors of success while going to school. From a social dimension, poor interactions with teammates, coach, family, and the lack of empathy shown to them if they fail to live up to high expectations on the field or court is an example of diminished social support. Biopsychosocial considerations in student-athletes are essential. Approaching the student-athlete from a biopsychosocial perspective assists the athletic trainer, team physician, and mental health professional to meet the needs of the student-athlete in a holistic manner.³⁷

Oftentimes society and the media think of the importance of addressing anxiety and depression in stu-

dent-athletes is for sport performance reasons. However, the recognition of and addressing mental health conditions in student-athletes is more important than how a student-athlete practices or competes in their respective sport. The important goal of student-athlete's mental health from a biopsychosocial perspective is for their overall wellness over a lifespan of transitioning out of sport into their personal and professional lives.³⁸

The biopsychosocial model infers that care for any injury involves the duality between the mental and physical experiences of a student-athlete.³⁸ The psychosocial relationship between a student-athlete and the athletic trainer, team physician, or mental health professional is a critical determinant of care outcome success.³⁸ This critical determinant involves the understanding by the athletic trainer, team physician, and mental health professional of the student-athlete's social network, family, community, and the large social spheres of influence that affect the injured or ill student-athlete.³⁸ Utilizing the biopsychosocial model with student-athletes assists the athletic trainer, team physician, and mental health professional in their care to help the student-athlete feel safe to share their mental health concerns regarding their physical injury or psychological concern so that appropriate diagnostic and treatment decisions and action be made for the student-athlete in a holistic manner.³⁸

Social support is an important tenant of the biopsychosocial model. One study reported that perceived social support may provide a positive resource for the coping of Black and African American adolescent football student-athletes.³⁹

In the dynamic of social support within the biopsychosocial elements, athletic trainers should keep in mind the value of establishing a positive relationship with the student-athlete. Having a positive working relationship with student-athletes is a major contributor of social support for student-athletes.⁴⁰

Social Determinants of Health

Social determinants of health (SDOH) are the circumstances under which individuals are born, live, and work that influence health outcomes.⁴¹ SDOH are largely influenced by economics, policy, and social interactions within one's community.⁴² The SDOH has five major domains: (1) education access and quality, (2) health care access and quality, (3) neighborhood and built environment, (4) social or community context,

and (5) economic stability.⁴¹ SDOH can be either positive or negative, however most studies on SDOH have focused and reported on the negative influence on an individual's life.⁴³ An example of this would be a student-athlete's family doesn't earn enough money to get out of poverty and unable to afford a new or safe place to live would be examples of both SDOH economic and neighborhood instabilities. Individuals living in a socially disordered neighborhood have higher rates of depression and anxiety.⁴⁴

Athletic trainers, team physicians, and mental health providers should enhance their recognition and appreciation of how SDOH influence the health of the student-athlete to improve their care.⁴¹ Having an appreciation for the five domains of SDOH, the athletic trainer, team physician, and mental health provider can examine area(s) where the student-athlete has in the past or is being presently challenged which may negatively impact their care. For example, if a student-athlete comes from a home where health care and quality were a challenge, they may not have received proper physical or dental care prior to entering college, thus bringing with them chronic injuries or dental issues for the sports medicine operation to resolve. For some student-athletes, receiving their first pre-participation physical exam in college may be the first time they had any sort of physical examination. For some student-athletes, arriving on campus may be the first time they can sleep without hearing sirens at night due to their growing up in a high crime neighborhood. Rivera et al⁴¹ reported in their study that 60% of athletic trainers surveyed perceived they had minimal or no knowledge of SDOH⁴¹, though SDOH are observable by athletic trainers on a regular basis.⁴³

Athletic trainers, team physicians, and mental health professionals would be prudent to study the five domains of SDOH to gain a deeper appreciation for understanding the environment from which a student-athlete reports from to enhance their communication and care for student-athletes. Understanding the environment from which a student-athlete hails from and potential SDOH challenges, the athletic trainer, team physician, and mental health professional can incorporate empathy, increased communication, and perhaps recommending solutions when interacting with the student-athlete who many have come from a SDOH challenge. Mitigating the influences of negative SDOH on a student-athlete through education and referral into mental health care services, along with providing resources and access to individuals on campus or in the community to address specific negative SDOH would be beneficial to the stu-

dent-athlete in need.⁴³

Adverse Childhood Experiences (ACEs)

Adverse childhood experiences (ACEs) are potentially traumatizing events that occur in childhood between the ages of 0-17.⁴⁵ ACEs are common, with about 64% of adults in the United States reporting they had at least one type of ACE before age 18.⁴⁵ 17% of adults report having multiple types of ACEs.⁴⁶

ACES and associated negative SDOH can cause toxic stress for the child, which may impact their brain development, immune system, and stress-response systems such as attention, decision-making, and learning.⁴⁷

Examples of ACEs include but are not limited to⁴⁵:

- Experiencing violence, abuse, or neglect
- Witnessing violence in the home or community
- Family or household member struggling with mental illness
- Having a family member attempt or complete suicide
- Substance abuse (alcohol and drugs) in the home or community
- Instability due to parental separation
- Instability in the home due to other members being in jail or prison
- Food insecurity
- Homelessness
- Discrimination

There are three categories of childhood abuse: psychological, physical, and sexual. There are four categories of exposure to household stressors during childhood: exposure to substance abuse (alcohol and/or drug use), mental illness of a family member, violent treatment of mother or stepmother, and criminal behavior resulting in prison.⁴⁸ A history of ACEs can result in several and potentially comorbid mental health and/or somatic disorders such as PTSD, depression, borderline personality disorder, diabetes, and obesity.^{49,50} The higher the number of ACEs puts the child into increased risk for developmental and health challenges.⁴⁹ Women report higher number of ACEs than men⁵¹, and if a child is exposed to one ACE, the child most of the time was exposed to multiple ACEs.⁴⁸ 60% of individuals have experienced one or more adverse experiences as a child

(e.g., one-parent home, abusive parent, parent who has been incarcerated, a parent(s) who experience mental health disorders, family economic hardships).^{52,53} This puts the individual at risk for PTSD.⁵² Individuals with an ACEs score of 6 or more out of 10 are 24-times more likely to attempt suicide than an individual with an ACEs score of zero.⁵⁴ Individuals who had experienced four or more categories of childhood exposure, compared to individuals who had reported none, had 4- to 12-fold increased health risks for alcoholism, drug abuse, depression, and suicide attempt.⁴⁸ Specific ACEs have significant negative impact on mental health for adults: forced intercourse, witnessing familial violence, verbal humiliation, and living with individuals with mental illness, substance abuse, and/or being incarcerated.⁵¹ ACEs may result in the individual adopting risky health behaviors including substance abuse.⁵⁵

A dose-response relationship exists between the number of ACEs and suicide and depression.⁵⁶

An Adverse Childhood Experiences Questionnaire (ACE-Q)⁴⁸ can be performed with a student-athlete experiencing a mental health issue. ACE-Q is a 10-item survey, scored from 0 to 10, with 10 being the highest score. The ACE-Q for operationalizing ACEs is to identify a student-athlete taking the questionnaire who scores a 4 or higher, which is associated with an increased risk for depression and anxiety as well as a significant decrease in the perception of social support.⁵⁷

Most college students reported in surveys that they have experienced ACEs, and that those students experiencing ACEs contribute to their mental health disorders and worsening their disorder over time.⁵⁸

College students who report ACEs in a study predicted the worsening of mental health over the course of a semester as the number of stressors increased.⁵⁹ This is important when remembering the multiple stressors being placed upon student-athletes at the college level. Collegiate student-athletes are transitioning through childhood to adolescent and then early adulthood. Starting college as a student-athlete is an important developmental period, and the mental health consequences of ACEs are likely to have important impact by disturbing the establishment of relationships that set the course for successful adulthood.⁶⁰

Determining who may conduct and review the results of the ACE-Q with the student-athlete is up for discussion within respective sports medicine-mental health care professional operations institutionally. However,

utilizing the ACE-Q may help start dialogue on how an ACE(s) is presently affecting the student-athlete's mental wellness and behavior.⁵⁶

Having an awareness of a student-athletes ACEs level is a useful step for the athletic trainer, team physician, and mental health professional to take when establishing a therapeutic alliance with the individual student-athlete.

Sexual Trauma

Sexual assault is a traumatic experience for the victim. The athletic trainer providing care to an athlete or patient who has experienced sexual assault should consider the consequences of trauma to the victim. Trauma negatively affects the physical, cognitive, and behavioral function of the victim. Additionally, social and school-work relationships are also negatively impacted by sexual assault. The following information is for the athletic trainer to consider when working with an athlete or patient who has been a victim of sexual assault, as well as for the athletic trainer who has been a victim of sexual assault in either the workplace or in their personal life. The victim should be treated with compassion and empathy as they navigate the aftermath of their trauma in the areas below.

Physically, sexually assaulted women experienced higher rates of irritable bowel syndrome, asthma, diabetes, chronic pain, sleep disturbances, and frequent headaches than women who were not sexually assaulted.⁶¹ Additionally, women who have a history of sexual assault have higher rates of hypertension, obesity, high cholesterol, and smoking.⁶¹ Women who are sexual assault victims were more likely to experience a heart attack.⁶¹ Those individuals who have experienced sexual assault are more inclined to develop maladaptive behaviors such as alcohol and drug abuse, smoking, and disordered eating, which has a deleterious influence on physical health.⁶¹ Those experiencing PTSD report physical health problems that include respiratory diseases, cardiovascular diseases, gastrointestinal disorders, chronic pain, and cancer.⁶² Sexually assaulted individuals also are at risk for regulatory and immune dysfunction.⁶⁰ High stress levels and sleep disturbances associated with trauma have been linked to diabetes, and perhaps the hypothalamus which regulates energy and appetite.⁶¹ PTSD symptoms of sexual assault victims were associated with reproductive dysfunction in women attending college.⁶³

There are cognitive consequences to the victim of sexual assault^{64,65}:

- Mental defeat. A perceived loss of psychological autonomy with a sense that the victim is no longer human. This mental defeat challenges the victim's sense of competence and worthiness.
- Negative cognitive appraisals of the sexual assault. This includes negative appraisals of emotions during the traumatic event as well as negative appraisals of emotions during the event. Lastly, once PTSD symptoms appear, the victim may experience negative appraisals of other's reaction to the assault and have a sense that their emotions are permanent, thus damaging or destroying the victim's life.
- Maladaptive control strategies used by the victim. The victim may employ avoidance of unfamiliar situations or places; cognitive avoidance by distracting behaviors in school, sport or work; safety seeking by carrying a weapon; and rumination on what the victim could have done to have prevented the assault.

Women who experienced psychological distress from any form of trauma were at an increased risk of dementia.⁶⁶ Additionally, adults who have experienced childhood maltreatment, including sexual assault, tend to have decreased gray matter in their hippocampus, and an increase of gray matter in the orbitofrontal cortex, which regulates the mental and emotional responses. Thus, this increase in gray matter in the regulator systems increases the risk of major depressive disorders being developed.⁶⁷

Individuals with severe mental illnesses are substantially increased risk of domestic and sexual abuse.⁶⁸ Men and women who have a history of severe mental illness and are under care for their mental health disorder are 2-8 times more likely to experience domestic and sexual violence than the general population.⁶⁸ Women with severe mental illness were more likely to attempt suicide after sexual assault than women who did not report a history of severe mental illness prior to their experiencing sexual assault.⁶⁸ Healthcare professionals should consider sexual assault as a trigger for suicide attempts by individuals with a history of mental health disorders.⁶⁸

Victims of sexual assault experience a wide range of behavioral symptoms. These include depression, anxiety, hostility, paranoia, and poor self-esteem.⁶⁹ Depression and anxiety are the most reported psychological symptoms of sexual assault survivors seeking care.⁷⁰ Victims of trauma such as sexual assault may demonstrate be-

haviors such as issues in problem solving, aggression, avoidance, or psychobiological paralysis (freezing in place), and have poorer coping skills when under stress.⁷¹ One of the primary behavioral consequences of sexual assault is PTSD. Some women who experience sexual assault report significant levels of anxiety and mood disorders into late adulthood.⁷²

Individuals along the gender spectrum can experience sexual assault. Stigma over being a sexual assault victim can be experienced by victims, including men who have been sexually assaulted. Rape survivors are the largest group of individuals with PTSD.⁷³ Between 17% and 65% of women with a history of sexual assault develop PTSD.⁷⁴ Sexual assault survivors have a reported higher incidence of PTSD and depression.⁶³ Comorbidity in mental health disorders following a traumatic event such as sexual assault for those survivors who experience PTSD may influence other mental health disorders.⁷⁵ 8 out of 10 individuals with PTSD meet the criteria for one or more other psychiatric diagnosis.⁷⁶ This includes comorbidities with anxiety disorders, affective disorders, substance abuse and dissociative disorders.⁷⁶ Overlapping symptoms of PTSD and depression include restricted range of emotional affect, diminished interest, and poor levels of concentration.⁷⁶ Overlapping symptoms of PTSD and generalized anxiety disorder are hypervigilance, irritability, and an increase in startle reflex.⁷⁷ Additionally, when exposed to reminders of trauma, individuals with PTSD have a reaction physiologically that may present as panic attacks.⁷⁶ PTSD is associated with a poorer quality of life, short and long-term disabilities, and an increase of suicide attempts.⁶²

Socially, the aspects of the sexual assault, help-seeking, disclosures to others post-assault, and norms of the sociocultural world from which the victim lives are trauma that effect the well-being of a woman post sexual assault.⁷⁴ The victimization of a sexual assault survivor is cumulative. In addition, the social world response towards the victim is also cumulative. Both responses affect a victim's mental health.⁷⁴ Coping after a sexual assault can cause significant stress for the victim, family, friends, and significant others.⁷³

Nonconsensual pornography, or "revenge porn" which involves uploading nude, semi-nude images and videos of a person online without their consent. Victims of revenge porn report PTSD, anxiety, depression, and suicide ideation.⁷⁷ Additionally, women victims of revenge porn report embarrassment and shame over the images or videos once they are posted online.⁷⁷ As a result, vic-

tims of revenge porn report experiencing trust issues with others.⁷⁷

The trauma of sexual assault can disrupt the victim's school and work.⁷⁸ Sexual assault victims find it hard to concentrate, are avoidant of others, and suffer from PTSD which interferes with success in school.⁷⁸ Economically, a sexual assault victim, as a result of their trauma, experiences employment challenges such as taking time off to address physical and mental consequences of the sexual assault, diminished performance in the workplace, inability to work, lost job opportunities and promotions, and job termination.⁷⁹ This results in lower earning power and potential over months and years following a sexual assault.⁷⁹

LGBTQ individuals who are victims of sexual assault are at risk for secondary victimization because their sexual identity becomes directly linked to their heightened sense of vulnerability for more assaults. The verbal assaults LGBTQ individuals experience negatively affect the victim's psychological well-being.⁸⁰

Childhood sexual assault is increasingly being recognized as having a detrimental effect on the emotional well-being of the victim as an adult.^{81,82} There are four trauma causing factors that victims of childhood sexual assault may experience: stigmatization, betrayal, powerlessness, and traumatic sexualization.⁸¹ PTSD is prevalent in victims of childhood sexual assault both as a child and adolescent and as an adult.⁸¹ The impact of childhood sexual abuse includes an association with increased rates of mental disorders for the victim as a child into adulthood.⁸³ Adolescents that have been sexually assaulted are at risk for a wide-range of negative outcomes, including PTSD, depression, substance abuse, suicide ideology, teenage pregnancy, risky sexual practices, poorer general health, and poorer educational outcomes.⁷⁸ Long-term effects of childhood sexual assault are suicidal behavior, substance abuse, disordered eating, personality disturbances, and revictimization.⁸⁴ Childhood maltreatment has been associated with an increased risk of anxiety, PTSD, depression, psychosis, and suicide ideology as the child develops into adulthood.⁸⁵ Childhood maltreatment is associated with negative life-satisfaction into adulthood and lower sense of well-being socially.⁸⁵ Athletic trainers learning of a student-athlete's past history of childhood sexual assault should approach the student-athlete with empathy and discuss potential services available for that student-athlete to be evaluated or to continue post sexual assault treatment.

Many women do not seek mental health resources for psychological adverse reactions following sexual assault.^{86,87} Additionally, sexual assault survivors are more likely to report their sexual assault to health professionals rather than to police.⁶⁸ Athletic trainers need to be aware of and prepared to hear reports of sexual abuse by their athletes, patients, and colleagues, and know what their ethical duty and organizational policy is to report and how to refer the victim for care.

Survivors of sexual assault have elevated rates of suicide ideation and attempts.⁷³ Most women in one study (69.4%) do not plan on filing charges against perpetrators of sexual assault, with those that did file charges report dissatisfaction with the police interview.⁸⁴ More than half of respondents in a study report waiting years after a sexual assault to disclose the information⁸⁴, and many individuals sexually assaulted in childhood waited until adulthood to seek assistance.⁸⁴

Secondary victimization occurs when a sexual assault victim is denied or receives inadequate care and support, as well as a series of prolonged consequences from negative and judgmental attitudes of others directed towards the victim, alienation, and perhaps condemnation of the victim.⁸⁸ This secondary victimization may exacerbate women's' mental health and should be addressed in their mental health care.⁸⁸ Coordinated care of rape victims can help address secondary victimization.⁷⁴ Developing a plan to bringing together health care professionals, mental health professionals such as social workers, police, and prosecutors, creates an integrated team working in the best interest of the rape victim.⁷⁴ More emotionally supportive care outside of mental health services need to be developed to support sexual assault survivors.⁷⁴ Athletic trainers hold a unique place in health care to contribute to this type of planning as they are the first-line personnel that have sexual assaults reported to them and work closely with the victim going forward.

The impact of sexual trauma is wide-ranging. The athletic trainer, team physician, and mental health professional should realize this impact on the survivor of sexual assault and work within the elements of empathy and confidentiality for the student-athlete, as well as being aware of mandated reporter laws in their respective states of practice. Referral for mental health assessment and treatment is part of the after-action planning of sexual assault.

Post-Traumatic Stress

Post-Traumatic Stress Disorder falls under the Trauma and Stress Disorders in the *Diagnostic and Statistical Manual of Mental Disorders-5-Text Revisions* (DSM-5-TR).⁶ Individuals with PTSD are more likely to meet diagnostic criteria for at least one other mental health disorder than individuals without PTSD.⁶ Women are also more likely to develop PTSD following a mild traumatic brain injury (TBI).⁶ Posttraumatic Stress Disorder (PTSD) in United States college students rose 4.1% between 2017 and 2022.⁸⁹

Given the physical and mental trauma of sport-related injuries, it is prudent to understand Post-Traumatic Stress Disorder (PTSD) when providing mental health care to athletes.⁹⁰ Student-athletes are at risk to develop mental health challenges following injury, including PTSD.^{1,2, 90,91,92,93} Studies have also reported that an athlete witnessing another athlete being injured during a practice or game may result in a negative psychological response.^{94,95}

Diagnosing PTSD and disorders related to trauma are challenging to make in athletes.⁹⁶ Athletes may experience PTSD from non-athletic sources that may be exacerbated by an injury.⁹⁶ Psychosocial problems experienced by athletes with PTSD are hyperarousal commonly experienced as anxiety manifested as fear of re-injury, avoidance of risk-taking behaviors such as running, jumping, or tackling; racing resting heart rate; and negative thoughts of the world and the possibility of their recovery from injury.^{90,96,97} Thomas and Jaque⁹⁷ found that athletes with PTSD have more difficulty in regulating emotions than athletes without PTSD. Injured athletes may be hesitant to go for physical therapy for injuries because of avoidance, which delays recovery and return to activity⁹⁶, as well as attempting to reduce the social isolation they feel with PTSD by playing through injuries they shouldn't be playing with.⁹⁸ Injured athletes also exhibit intrusive thoughts and flashbacks of the injury, depressed mood and irritability.^{91,96} Injured athletes may exhibit sudden onset reluctance to train at full intensity, avoiding activities with teammates outside of training, sleep disturbances, or using alcohol to self-treat anxiety.⁹¹ Injured athletes may develop comorbid conditions such as substance abuse, eating disorders, and obsessive-compulsive disorder due to perfectionistic maladaptive behaviors as they recover from injury.⁹⁶

Athletes who tear their anterior cruciate ligament (ACL) run the risk of depression and fear of reinjury. Following ACL tears, athletes experienced significant emotional trauma, featured by avoidance (87.5% of pa-

tients reporting), intrusive thoughts (83.3% of patients reporting), and hyperarousal (75% of patients reporting). High school and intercollegiate athletes, female athletes, and athletes with high athletic identities may be most susceptible to PTSD following ACL tears.⁹⁰

Athletes also may experience PTSD following a concussion.^{90,92} Researchers postulate that PTSD in concussed individuals is developed because the impaired regulation of the amygdala by the medial prefrontal cortex.⁹⁹ Concussed athletes report psychosocial effects following their concussions such as having intrusive thoughts, flashbacks to the concussion, nightmares, being numb, fear, anxiety, difficulty in sleeping, avoidance of athletic situations that caused their concussion (e.g., tackling in football), and trouble thinking clearly.⁹² Concussion and PTSD can be comorbid, and misdiagnosing this comorbidity may interfere with treatment outcomes.¹⁰⁰ PTSD symptoms such as having trouble thinking clearly and sleeping disturbances could be attributed to post-concussive syndrome and not PTSD, leaving the athlete untreated for this disorder.¹⁰⁰

PTSD can be challenging to diagnose and effectively treat in athletes due to its complex presentation in athletes.¹⁰¹ Barriers unique to elite athletes may delay or inadvertently prevent access to mental health care.⁹¹ Additionally, recognizing PTSD in athletes may be challenging because of the athlete's tendency to mask PTSD for fear of stigma.¹⁰²

For student-athletes presenting with PTSD symptoms, two evidence-based screening tools for use would be the Primary Care PTSD Screen for DSM-5 (PC-PTSD-5)¹⁰³, and the Severity of Post-Traumatic Stress Symptoms-Adult.¹⁰⁴ The PC-PTSD-5 screening could be considered for all incoming student-athletes to either identify an individual student-athlete(s) who may need immediate service for PTSD or to be used for all student-athletes as a baseline for use following injury. The Severity of Post-Traumatic Stress Symptoms-Adult survey could be used for an athlete experiencing an injury and having difficulty either physically and/or mentally recovering from an injury. Having objective data from which to work is helpful in PTSD treatment.

Substance Abuse

Alcohol is a psychoactive substance that produces alterations in the central nervous system and may cause behavior changes. Athletes use alcohol to cause euphoria and loss of inhibitions. Alcohol can also be harmful to athletes in terms of dehydration, diminished psychomo-

tor skills, reduced muscle strength, power, endurance, and decreased cardiovascular endurance. Additional illness triggered or exacerbated by excessive alcohol consumption include cancer, liver, and pancreatic diseases.¹⁰⁵ Relative to mental health disorders, alcohol abuse can lead to dependency and problem drinking, including binge-drinking, which may impede the mental health and wellness of the student-athlete, including driving while under the influence, physical assaults, accidents from falling drunk, sexual assaults, and regrettable sexual decisions.^{106,107}

The abuse of opioid medications by student-athletes, especially following injury, is something the athletic trainer, team physician, and mental health professional need to be aware of. Abusing prescription opioid medications in the athletic setting is common.¹⁰⁷ Additionally, the stressors of being an athlete and/or an existing mental health condition may lead a student-athlete to a maladaptive coping method of abusing opioid medications as a way to escape their stressors and deal with their mental health challenges.¹⁰⁷ Sports medicine departments should re-examine their opioid medication policies to appropriately limit the amount of medication prescribed to student-athletes to manage their pain post-injury or post-surgically. Additionally, the sports medicine staff and mental health professionals should be observant for signs and symptoms of opioid abuse and provide psychoeducation on effective emotional coping strategies to prevent opioid medication abuse.

Cannabis Considerations

In June 2024, the NCAA announced that marijuana and cannabis products will be removed as a banned drug class for college football's postseason and all Division I championships.¹⁰⁸ Since the NCAA doesn't test for marijuana and cannabis products during campus testing during the year, the NCAA has eliminated marijuana and cannabis products from their banned substances list. However, individual institutions may still test student-athletes for marijuana and cannabis products on their campus. The information provided below is to better educate the athletic trainer, team physician, mental health professional, and student-athlete to better understand the dynamics revolving around cannabis use.

As of January 1, 2025, 40 states and the District of Columbia have legalized marijuana for medicinal purposes. Furthermore, 24 states (in addition to the District of Columbia and three US territories to include Guam, the Northern Mariana Islands, and the U.S Virgin Islands) have legalized marijuana for "adult-use" purposes, for-

merly referred to as “recreational use.”¹⁰⁹

Benoy et al¹¹⁰ reported that up to 1 in 4 athletes have used cannabis at least once in the last year, with a strong possibility of underreporting in the surveys. These cultural and societal changes have impact on those cared for by athletic trainers in nearly all settings. While some states continue to not support legal use of marijuana, and all states that have legalized marijuana established minimum age requirements to purchase, the prevalence of numerous sources and application options for one’s use of marijuana products is greater than ever. In addition, not unlike alcohol or cigarette use, behaviors and marijuana use patterns oftentimes began during early teenage years.

Marijuana is more appropriately referred to by the term “cannabis”, a reflection of the entire plant itself containing some 140+ components known as cannabinoids. Of these cannabinoids, the most popular and abundant include Delta-9 tetrahydrocannabinol (THC) and Cannabidiol (CBD). THC is the cannabinoid most associated with marijuana. CBD and other cannabinoids have shown promising benefits with some therapeutic interventions, specifically with symptoms related to pain, inflammation, anxiety and sleep, as well as medical conditions to include migraines, irritable bowel syndrome, fibromyalgia, and others.^{111,112} Similarly, low dosages of THC are recommended under the supervision of a physician for medical purposes that may benefit individuals with Post Traumatic Stress Disorder (PTSD), arthritis, and progressive neurological disorders amongst many other conditions.¹¹³ The proposed benefits are purported to function by way of what is known as the endocannabinoid system, or the ECS. Not fully understood and only identified in the late 1980’s, using plant cannabinoids to supplement one’s bodily systems do not come without required educational knowledge, known drug interactions, adverse effects, and still many unknowns.^{114,115} Unfortunately, frequent cannabis users demonstrate low knowledge of cannabinoid content and dosages, leading to shotgun approach of self-medicating with cannabis to treat one’s symptoms and conditions.¹¹⁶

What is known is that the strength of cannabis strains today is far more potent than mere decades ago, and as a result believed to be associated with an increase in adverse mental health conditions and addiction.¹¹⁷ Specifically, increases in psychosis, cannabis use disorder (CUD), depression, and anxiety have been noted.¹¹⁷

Cannabis use disorder (CUD) affects approximately

10% of the 193 million cannabis users worldwide¹¹⁸ and has been defined as a mental health condition that involves a problematic pattern and compulsive use of cannabis despite negative impacts on health or life. Areas impacted may include athletics, relationships, academics, and overall quality of life. Individuals with CUD may be dealing with any of the following symptoms¹¹⁹:

- A need to regularly utilize increased amounts of cannabis
- Maintaining a strong urge and desire to use cannabis
- Unsuccessful efforts to cut down on use
- Struggling with responsibilities at work, school, and home
- Decreasing reliability with commitments and planned activities and expectations

An individual with CUD may be recognized by the athletic trainer during interactions whereby some of the following behaviors may be exhibited:

- Confusion
- Memory issues
- Decreased learning acquisition
- Hallucinations
- Withdrawal from family, friends, and teammates
- Changes in mood
- Hostility and denial when confronted about cannabis use

Van Halm-Lutterodt et al¹²⁰ cited a case where complications arose following a post-surgical cervical discectomy procedure and suggested that individuals with baseline cannabis use disorder may be at an increased risk for hospital readmission. For physically active individuals and competitive athletes who may already feel pressures to succeed, the use of improperly dosed cannabis regardless of intake method (e.g., inhaled, ingested) can in fact predispose one to the conditions.

There has been a strong correlation established between increased cannabis use and psychotic behaviors.¹²¹ West and Shariff¹²¹ suggest such behavior is likely exacerbated in individuals who begin using cannabis at an earlier age and who possess underlying psychotic risk and disorders or a genetic predisposition. Cannabis use at early ages negatively impacts the endocannabinoid

system and its role with nervous system development and homeostatic functions.¹²²

In 2021 the National Athletic Trainers' Association established the Cannabinoid Task Force whose purpose was to create resources for athletic trainers to address the demand for information related to cannabis products among various patient populations and rapidly changing regulations. The association's Cannabis-Related Resources for the Athletic Trainer website (<https://nata.org/health-topics-cannabis-use>) currently hosts timely and practical information for athletic trainers to refer to with cannabis-related questions.¹²³

Perhaps of greatest importance is that of self-education. It is essential that prior to assisting one's patients with cannabis-related questions and concerns, that the athletic trainer themselves be well-versed on how cannabis impacts an individual. This relates to the type of cannabis, the mode of application, the dosage, timing of use, and much more. David et al¹²⁴ reported that 53.5% of athletic training and physical therapy educators have not receive or formal training on cannabis. Thirty-eight percent of those surveyed noted teaching cannabis-related topics in their current curriculum despite most of these individuals not completing any educational training and merely self-educating themselves through available literature.¹²⁴ Konin and Onate¹²⁵ provided a framework for recognizing how cannabis education can be integrated into the athletic training curriculum utilizing the existing accreditation standards. For those in clinical practice working directly with athletes who may be exposed to the risks associated with cannabis use. Konin¹²⁶ proposed 10 steps for effective messaging that builds trust, credibility, and a framework within an entire organization to establish a harm-reduction strategy. The strategy is focused on educating the stakeholders versus taking a punitive approach.

Mental Health and Social Categories

In the United States, people are often treated based on the social categories to which they are perceived to belong (i.e., social location) or self-identify (i.e., social identity).¹²⁷ Additionally, patients may have differing views and beliefs about mental health and mental illness based on their social location and social identity. The impact of their views, beliefs, and treatment may have mental health consequences. Furthermore, the stigmatization of mental health intersecting with stigma associated with social identities may further marginalize vulnerable populations leading to challenges associated with mental health care.¹²⁸ The social categories of

sex, gender, sexuality, and race will be briefly discussed and how they relate to mental health.

Definition of Social Categories

Sex and gender are often used interchangeably but are different concepts. Sex is associated with one's biology/anatomy, chromosomes, DNA, internal reproductive organs, and external genitalia, historically assigned at birth as female or male.¹²⁹ Babies born with variations in their hormones¹³⁰, chromosomes^{131,132}, or external genitalia which do not adhere to the binary designation of male or female were historically labeled as hermaphrodites (an outdated and may be considered offensive term). More contemporarily the term intersex and differences of sex development (DSD)¹³³ are used.

Gender, on the other hand, is socially constructed, referring to how the definition changes over time based on society. Gender relates to the social mores and expectations historically associated with or perceived being in alignment (or the degree of alignment or not) with binarily a woman (feminine) or a man (masculine). Men were expected to be strong, powerful and dominating, while women were expected to be weak, demure, powerless. The differentiation may be based on clothing, hairstyle, mannerisms, behaviors, and social practices.^{130,134}

Gender diverse, nonbinary, and transgender are umbrella terms in the gender lexicon".¹³⁵ People who have gender identities and/or gender expressions that go beyond the gender binary of female/girl/woman or male/boy/man¹³⁶ may use the terms gender diverse or nonbinary. Transgender "refers to all of the non-binary identities within the gender identity spectrum" and may be used when sex assigned at birth and gender identity do not align.¹³⁷ The term may also be used to describe someone who has or is in the process of transitioning from living as one gender to another.¹³⁷

Sexuality or sexual orientation is socially constructed and historically posited in the binary as gay (i.e. umbrella term for lesbian women and gay men) or straight; heterosexual or homosexual (outdated term). Contemporarily, sexualities are more expansive allowing for varying types and kinds romantic, emotional, and/or sexual attractions.¹³⁰

Race is also socially constructed and often based on phenotype and physical characteristics such as skin color, hair texture, facial features, and body shape. Ethnicity is associated with having a common cultural or natural heritage. For example, common language,

historical geography, food, traditions, literature, faith, immigration and settlement patterns may also be included.¹³⁸

Select Demographic Data on Mental Health Status, Sex, Race and Ethnicity

In 2023, the Substance Abuse and Mental Health Services Administration conducted its annual National Survey on Drug Use and Health (NSDUH).¹³⁹ They reported 58.7 million people 18 years or older reported any mental illness, with the highest group being aged 18-25 years old at 11.5 million. As listed in **Table 1**, of the 18-25-year-old, females were more likely to report any mental illness, as were people who identified as not Hispanic or Latino, followed by people who identified as White, and Hispanic/Latino respectively. Of the three most populous Latinx subgroups in the United States from 2021-2023 combined, of those 18 years or older, Puerto Ricans (25.2%) were more likely than Mexicans (20.8%) or Cubans (15.9%) to report any mental illness.¹⁴⁰ Likewise, of the three most populous Asian subgroups in the United States from 2021-2023 combined, of those 18 years or older, Filipinos (27.9%) were more likely than Chinese (20.4%) or Asian Indians (19.3%) to report any mental illness.¹⁴¹ Additionally, “among adults aged 18 or older in 2023, 5.0% (or 12.8 million people) had serious thoughts of suicide, 1.4% (or 3.7 million people) made a suicide plan, and 0.6% (or 1.5 million people) attempted suicide in the past year”.^{142,143} Table 1 highlights data on suicide relative to 18-25-year old.

There is scarce data on intersex adults in the United States. Rosenwohl-Mack¹⁴⁴, reports 53% of 259 respondents indicated they had fair/poor mental health. The mental health issues included depression and anxiety.

Select Demographic Data on Mental Health Status, Gender and Sexuality

In 2022, KFF surveyed 6,442 adults ranging in age from 18-64, which included 958 LGBT+ people. For their survey, “LGBT+ people include[d] those who identified their sexual orientation as lesbian, gay, bisexual, or ‘something else,’ and those who identified their gender as transgender, non-binary, ‘other,’ or whose reported gender does not correspond to their reported sex assigned at birth”.¹⁴⁵ KFF indicated in the past two years “two-thirds of LGBT+ people (67%)” compared to 39% of non-LGBT+ people reported needing a mental health service.¹⁴⁵ Of those needing a mental

health service, 79% were aged 18-25-year old, 73% were women, and 57 % were men. Of the total LGBT+ people reporting a need for mental health service, only approximately one half sought and attained services.¹⁴⁵

In the same year, the U.S. Transgender Survey was conducted with 92,329 people 18 years or older “with binary and nonbinary transgender identities and other identities on the transgender identity spectrum, regardless of the terminology used by the respondent”.¹⁴⁶ Of those surveyed, 44% reported experiencing, “serious psychological distress in the last 30 days”.¹⁴⁶ However, 97% of respondents who underwent gender affirming surgery reported they were a lot (88%) or a little “more satisfied” (9%) with their life.¹⁴⁶

When people have been or perceive to have been stigmatized¹²⁸, marginalized, oppressed, or discriminated against due to individual actions, inequitable systemic or structural forces, the result can lead to health-harming conditions including chronic stressor¹⁴⁷ for some, systemic trauma.¹⁴⁸ For LGBT+/ sexual and gender minorities, and for some binary and nonbinary transgender people, they have experiences of being stigmatized, discriminated against, or subjected to violence as well.^{149,150} For example, being refused treatment, misgendered, or being treated in a rough or abusive manner during a visit with a health care provider.¹⁴⁶ Such negative treatment¹⁴⁹ and stigma associated with mental health issues¹²⁸ can lead to a patient’s unwillingness to seek care. Thus, the athletic trainer, team physician, and mental health professional should understand how a patient self-identifies, how their identity informs their perceptions about mental illness and mental health can help athletic trainers better address the stigma and formulate treatment plans.

For many LGBTQIA+ student-athletes, college is a time & place for exploring independence and identity. Most are living on their own for the first time with the freedom and decision-making responsibility that this entails. This freedom and responsibility can be overwhelming for some student-athletes, especially those who have not had the opportunity to develop supportive coping skills during their younger years due to a lack of acceptance. As a sexual minority, LGBTQIA+ student-athletes suffer higher rates of internalized negative social stress. The resulting stigmatization and prejudice place the LGBTQIA+ athlete at risk for developing a mental health disorder and experiencing health care disparities.¹⁵¹ Substance abuse is greater with sexual minority students, both student-athlete and non-student-athlete.¹⁵² Statistically, sexual minority youth are 3

Table 1. Example of Mental Health Status of 18-25 Year Olds by Sex, Race and Ethnicity in 2023 (in the thousands)				
Sex, Race and Ethnicity	Any Mental Illness in the Past Year ^{ac}	Had Serious Thoughts of Suicide in Past Year ^{ad}	Made Any Suicide Plans in Past Year ^{ae}	Attempted Suicide in the Past Year ^{af}
Female	6,797	2,444	844	360
Male	4,718	1,721	591	315
Not Hispanic/Latino	9,086	3,321	1,135	533
American Indian, Alaskan Native	^b	24	12	10
Asian	670	219	72	46
Black or African American	1,192	499	172	98
Native Hawaiian, or Pacific Islander	^b	^b	^b	^b
White	6,646	2,356	786	356
2 or More Races	498	204	81	35
Hispanic/Latino	2,429	844	301	122
^a Total number of participants = 58,657 (58.6 million); Total number of 18-25 year olds = 11, 515 (11.5 million)				
^b = low precision; -- = not available or not comparable due to methodological changes				

Source: Substance Abuse and Mental Health Services Administration, 2024e. Results from the 2023 National Survey on Drug Use and Health: Mental Health Detailed Tables

^cTable 6.2A – Any Mental Illness in Past Year: Among People Aged 18 or Older; by Age Group and Demographic Characteristics, Numbers in Thousands, 2022 and 2023

^dTable 6.69A – Had Serious Thoughts of Suicide in Past Year: Among People Aged 18 or Older; by Age Group and Demographic Characteristics, Numbers in Thousands, 2022 and 2023

^eTable 6.70A – Made Any Suicide Plans in Past Year: Among People Aged 18 or Older; by Age Group and Demographic Characteristics, Numbers in Thousands, 2022 and 2023

^fTable 6.71A – Attempted Suicide in Past Year: Among People Aged 18 or Older; by Age Group and Demographic Characteristics, Numbers in Thousands, 2022 and 2023

times more likely to plan a suicide and almost 4 times more likely to attempt a suicide than their heterosexual counterparts.¹⁵³ Nearly 1 in 6 LGBTQIA+ patients experience healthcare discrimination¹⁵⁴, with nearly 1 in 5 LGBTQIA+ patients avoid seeking care.¹⁵⁴ LGBTQ+ youth experience elevated rates of mood disorders and depression. LGBTQ+ individuals also report a higher rate of post-traumatic stress disorder, anxiety disorders and alcohol use and abuse than cisgender counterparts.¹⁵⁴

Risk factors contributing to mental health concerns for LGBTQIA+ student-athletes include stigmatization. Minority Stress Theory suggests that sexual minorities such as members of the LGBTQIA+ community experience distinct and chronic stressors that are related to their stigmatized sexual orientation and identities. This stigmatization includes victimization, prejudice, and discrimination on institutional and personal levels.¹⁵⁰ LGBTQIA+ student-athletes may be lacking support from friends, family, coaches or teammates.

Recommendations for decreasing stressors and stigmatization of sexual minority student-athletes include: 1) Support. Athletic Trainers are often the point of care for collegiate student-athletes. By being an advocate in identifying and addressing blatant bias and discrimination in athletic training facilities, ATs can focus on more patient-centered and equitable practice.¹⁵⁵ 2) Education. Understand biases both explicit and implicit; intervene to support student-athletes when discriminatory behavior occurs; learn about your institutions policies on protecting LGBTQIA+ student-athletes against discrimination.¹⁵⁶ 3) Advocacy. When LGBTQIA+ individuals feel genuinely safe and supported in their sexual orientation and identity they develop higher self-esteem, less depression, and fewer reports of suicide.¹⁵⁷

Mental Health Stigma

Student-athletes dealing with mental illness often must struggle with a two-fold challenge. First, they must cope with symptoms of the mental health disease itself that interfere with their function as a person, student, and athlete. Secondly, they must deal with the misunderstandings of their teammates, coaches, classmates, and society at large about various mental health disorders.^{158,159}

Mental health stigma can be broken into two areas: public stigma and self-stigma.¹⁵⁸ Public stigma includes stereotyping of the individual.¹⁵⁸ Stereotypes are the way

in which humans categorize information about groups of people.¹⁶⁰ Negative stereotypes include having a negative belief of a group that suffers from mental health disorders that they are incompetent to manage their lives, having a character weakness, or perhaps being dangerous. Secondly, public stigma includes prejudice with the agreement with stereotyping and having a negative emotional reaction such as fear or anger towards one with a mental health disorder. Lastly, public stigma exhibits discrimination against individuals with mental health disorders. This includes a behavior response to prejudice such as avoidance of opportunities (playing, schoolwork, or housing) and withholding help that the individual needs or seeks. Self-stigma elements include the individual stereotyping themselves with negative beliefs of character weakness, incompetence, and given certain behaviors exhibited, dangerous. Secondly, self-stigmatization agrees with the prejudice of the public resulting in low self-esteem and self-efficacy. Lastly, self-stigmatization exhibits a behavioral response to discrimination in failing to pursue opportunities (playing, school work, housing), and doesn't seek the assistance they desire.¹⁵⁸ As far as mental illness is concerned, public and self-stigma seem to be widely supported by the general public in the United States.¹⁶⁰ Internalizing public stigma is the first stage of self-stigma regarding mental illness.¹⁶⁰ This internalization occurs in three stages: 1) Awareness that a person with an undesired mental health condition has a public stigma about their condition, 2) Agreement that these negative public stereotypes are true about a group (their own), and 3) Application of the of the stereotype to themselves.¹⁶⁰

Stigma and discrimination towards individuals with mental health conditions by their communities are common worldwide, resulting in negative outcomes for affected people, including poor access to mental health care.¹⁶¹

Consequences of mental illness stigma are two-fold: 1) public stigma results in everyday life discrimination in interpersonal interactions and, 2) negative stereotyping of mental illness in the media, and structural discrimination by private and public institutions that intentionally or unintentionally restrict opportunities for individuals with mental illness.¹⁵⁸

Some student-athletes who are discriminated against and endure mental illness public stigma may not experience self-stigma while other student-athletes with mental illness experience both forms of stigma. Being stigmatized may stimulate psychological reactance,

an opposition to negative perceptions of others with mental illness and with themselves.¹⁵⁸ However, if a student-athlete experiencing a mental illness legitimizes the stereotyping, prejudices, and discrimination displayed towards them, their self-esteem and self-efficacy are likely to be low. However, if a student-athlete with a mental illness is encouraged to empower themselves relative to their condition, their self-esteem and self-efficacy improves. This empowerment is fostered by others who do not stereotype, have a negative prejudice towards them because of their mental illness, and doesn't discriminate against those with mental illnesses.¹⁵⁸ Thus, those interacting with student-athletes experiencing mental illnesses should examine their behavior and interactions with that student-athlete to reduce mental illness stigmas.

Some strategies to address mental health stigma include challenging self-stigma, disclosing mental illnesses to trusted athletic trainers, coaches, and mental health professionals working with student-

athletes¹⁶⁰, education of student-athletes, athletic trainers, and coaches that mental illness is more psychosocial than biological in nature¹⁵⁸, and finally contact with student-athletes with mental illness.¹⁵⁸ Contact with student-athletes with mental illness by teammates, athletic trainers, and coaches are less likely to stigmatize this minority population.¹⁵⁸ Elements to consider in enhancing contact of student-athletes with mental illness with others include equal status of student-athletes on the team, a cooperative interaction with teammates, coaches, athletic trainers and other athletic department staff, and institutional support from athletic administrators.¹⁵⁸ The support of athletic trainers and team physicians for seeking assistance is important because mental health stigma is the main barrier preventing student-athletes from seeking psychological assistance.¹⁶²

Social Media

There is an interconnected role between socioemotional competence and happiness in social media engagement for emerging adults.¹⁶³ This is an evolving dynamic that needs monitoring and further study.¹⁶³ Cyberbullying a student-athlete on their appearance or performance does occur. Cyberbullying can be extremely detrimental to the student-athlete's physical and mental health.¹⁶⁴ Cyberbullying can result in student-athletes feeling hunted, unsure of themselves, or trigger mental health concerns.¹⁶⁴ Cyberbullying allows anonymity of bully-

ing the student-athlete from a distance, away from the student-athlete's parents, teammates, and coach, and is hard to detect.¹⁶⁴ A project sponsored by the American Counseling Association, VISTAS, reported that up to 22% of college students being bullied online and 38% of participants knew someone who had been cyberbullied.¹⁶⁴ Types of cyberbullying include flaming (one or more bullies attacking a particular student-athlete for their performance or views), exclusion, harassment, cyberstalking, outing, masquerading (bully creates fake identity), trolling, catfishing (a bully creates a fake account by stealing the student-athlete's photos and information from the student-athlete's social media account), and sexual harassment.¹⁶⁴ Beyond the cyberbullying of the student-athlete, there are real concerns for potential violence towards the student-athlete as a person and because of their athletic participation. Student-athletes should be educated and encouraged to report cyberbullying immediately to their athletic departments, campus security, local law enforcement, student services, and IT department.¹⁶⁴

Being aware of the potential harm seemingly minor transgressions anonymous people make on student-athletes in social media is important. Many believe individuals who were harmed by major transgressors would experience more dislike for that transgressor over time. However, one study contradicted this belief in their findings that a person viewed a transgressor who hurt them little with more dislike over time.¹⁶⁵ This suggests that even minor negative yet person comments on social media intended to harm a student-athlete have a greater impact on the student-athlete than first believed, and that measures in psychoeducation and social media practice for student-athletes should be considered.

Circumstances that May Challenge the Mental Health and Wellness of a Student-Athlete

Stressors of Being a Student-Athlete

Participation in intercollegiate athletics imposes additional demands and stressors on the student athlete. These demands range from physical (e.g., physical conditioning, participating with injuries, environmental conditions), to the mental (e.g., game strategy, meeting coaching expectations, attention from media and fellow students, time spent on sport, community service requirements, and diminishing personal and family time). These and other demands of being an athlete, coupled with the requirements of being a student (e.g., classes, study time, projects, papers, mid-term and final examinations, attaining and maintaining a grade point aver-

age to remain academically eligible, and maintaining their scholarship), presents a continuum of expectations on a student-athlete.¹⁶⁶⁻¹⁷⁴ Student-athletes are typically separated from the rest of the campus community in that they live together, eat together, and work out together. Often athletic facilities are separate from the general student population.¹

Pressure on a student-athlete is widely seen in the no off-season approach to training. The student-athlete is exposed to a predictable pattern and lack of sleep and under-recovery, putting the student-athlete at risk for anxiety and depression.¹⁷⁵⁻¹⁸⁷ Student-athlete overtraining is often the main feature of a “well developed” training plan and in three separate samples found 21% to 45% of student-athletes reported staleness (physical, mental, and emotional disturbances and a precursor to burnout).¹⁷⁰

Recovery factors are closely related to factors of well-being and performance, and that many student-athletes are in consistent cycles of chronic fatigue.¹⁸⁰ For student-athletes, the complex relationship of long-term training and uncontrollable life variables often leads to overtraining and puts them at risk for physical, mental, and emotional health problems.

There are four common identities for intercollegiate student-athletes: 1) fully engaged student-athletes with high academic and athletic identities, 2) committed student-athletes with high athletic identity and low academic identity, 3) academics-focused student-athletes with average academic identity and low athletic identity, and 4) academically unengaged student-athletes with extremely low academic and athletic identities.¹⁸⁸ Juggling heavy academic and athletic responsibilities impose challenges on student-athletes which may lead to negative impacts including pressure, stress, fatigue, and injury. Female student-athletes have lower sport confidence, higher general stress and body image concerns.¹⁸⁹ Intercollegiate student-athletes also report an unbalanced intrinsic versus extrinsic motivation towards their dual roles as an athlete and a student, which may cause conflict stressors in role responsibility for the student-athlete.¹⁹⁰

Student-athletes face various areas of adversity unlike the general college student. These areas include: injury, balancing athletics and academics, coach-athlete tension, teammate conflict, performance pressures, athletic failure, and feeling undervalued.¹⁹¹ A study of campus community attitudes towards student-athletes reported disfavor towards student-athletes with an intelligence

bias toward student-athletes in general and Black student-athletes specifically.¹⁹²

Athletic Identity

Athletic identity's operational definition is the degree to which an individual identifies with the athletic role.¹⁹³ The research on athletic identity has demonstrated that higher degrees of athletic identity relate to a higher motivation and commitment to a sport by the student-athlete.¹⁹⁴ Brewer and his colleagues¹⁹⁵ introduced and popularized the term “athletic identity” with both negative (not desired) and positive (desired) factors related to a high athletic identity. The Athlete Identity Measurement Scale has been a popular instrument to measure athletic identity.^{196,197} Brewer and Cornelius¹⁹⁸ developed the 7-item Athlete Identity Measurement Scale from the original 10-item Athletic Identity Measurement Scale.¹⁹⁵ The 7-item instrument identifies athletic identity in three areas, social identity as an athlete, exclusivity as an athlete, and negative affectivity of being an athlete.¹⁹⁸ The interactional construct of athletic identity considers the social dynamics and interpersonal relationships by the student-athlete, including peer interactions, coach-athlete relationships, and team dynamics.¹⁹⁹

Many student-athletes define themselves by their identities as athletes.^{1,2} Threats to that identity may come in the form of struggling performance, a chronic, time-loss, or career-ending injury, conflicts with coaches or teammates, or simply losing the interest and passion for playing their sport.^{1,2} These challenges and associated factors may put the college athlete in a position to experience a psychological concern, or to exacerbate an existing mental health concern.¹ College athletes often exhibit sport identity foreclosure since adolescence (exclusive interest in only one sport), and the greater this rigid identification, the more negative the psychological reaction can be when perceived or real challenges present in their athletic lives.²⁰⁰ Stressors of athletic participation may include being released from a team, dealing with an injury, performance challenges, mistakes in play, dealing with success, pressure to overspecialize or over train, and early termination from sport prior to loss of routine season eligibility.²⁰¹ Student-athletes with salient athletic identity is a risk factor that can expose the student-athlete to emotional abuse by coaches.²⁰²

A student-athlete traverses their way through their athletic identity through self-complexity. This is where the student-athlete explores behavior in cultivating a

new identity, such as a member of a profession other than sports.²⁰³ Student-athletes with high athletic identity report increased mental health symptoms during transitioning from sport or following retirement.^{204,205} This is why it is important to encourage the student-athlete to develop a new identity as a person other than just “athlete” because athletics end for all athletes, and developing this new identity is critical in navigating the life after ending their playing careers.

Adjustment Disorder in Athletes

Despite the prevalence of adjustment disorder overall in the population, little research focuses specifically on either prevalence or symptomology of adjustment disorder in athletes^{96, 206}, though some research has examined adjustment disorder specifically in the context of the COVID-19 pandemic.²⁰⁷ This limited research is not to say that student-athletes are not at risk of experiencing adjustment disorder. Instead, it is more likely that current research is capturing experiences that could be indicative of adjustment disorder despite lack of formal diagnosis.²⁰⁸ For example, Jones and Tenenbaum²⁰⁹ suggested that overtraining syndrome could be classified as an adjustment disorder and encouraged a focus on comprehensive biopsychosocial evaluation in the assessment and management of athletes experiencing burnout or overtraining syndrome. Additionally, athletes who reported prior psychiatric disorders related to burnout as similar in connotation to adjustment disorder given overlapping symptoms.²⁰⁹ Furthermore, extensive research exists on the psychological impact of injury on athletes including risk of negative mental health outcomes such as depression, anxiety, acute stress, or post-traumatic stress.^{210,211} A full review of this literature is beyond the scope of this section; however, it is possible that some athletes researched in these samples could meet criteria for adjustment disorder as athletes navigate their psychological response to an identified stressor (e.g., the injury) even if they do not meet full criteria for a depressive, anxiety, or other trauma-related mental health disorder. Similarly, transition into and out of collegiate sport is also an extensively researched topic. Research discusses the impact of transition out of sport on aspects of identity and mental health which could also be reframed as adjusting to a specific stressor (e.g., change in environment and/or sport participation).^{212,213} Symptoms in these cases may not meet full criteria for a depressive or anxiety-related disorder; however, symptoms could still be high enough to negatively impact the athlete’s functioning in school, sport, or life.

As an athletic trainer, team physician, or mental health professional, it is important to note that many types of stressors could contribute to an adjustment disorder including transitioning into college and collegiate sports, recent injury or illness, coaching or staff changes, adapting to a different role on the team, removal from their team, transitioning out of college, or retiring from sport. In addition, student-athletes could face stressors in their personal lives outside of sport that impact their mental health.

When dealing with a potential adjustment disorder, athletes might not describe their symptoms as being depressed or anxious. Instead, they could express feeling burned out, stressed, or overwhelmed. For example, imagine the case of a student-athlete who recently underwent ACL reconstruction surgery. They are starting to progress in their rehabilitation, though their day-to-day life is still significantly impacted by their lack of mobility. In physical therapy, the athlete reports feeling down about the whole recovery process and mentions they are having a hard time focusing on their schoolwork. They tell you they are overwhelmed with all they must do between rehabilitation, school, and managing their day-to-day life since they had surgery. They also report feeling worried about their recovery process and whether they will be able to return to their pre-injury sport participation levels, which makes it hard for them to connect with or be around their team at times. In this case, the athlete might not meet criteria for a depressive or anxiety disorder. However, they are showing signs of adjustment disorder due to experiencing mixed anxiety and depressive symptoms (e.g., low mood, feeling overwhelmed, worry) that are impacting their functioning (e.g., impact on academic work, social disconnection/isolation from team) in response to an identifiable stressor (e.g., ACL reconstruction).

If an athletic trainer is unsure if their student-athlete might be experiencing an adjustment disorder, consider the following steps including recognizing when athletes experience a recent change in circumstance that could impact mood, monitoring student-athletes for changes in their emotions or behaviors in general or in response to specific events, and providing a referral to a licensed mental health professional for further evaluation if symptoms appear to be severe or impacting the athlete’s day to day functioning. As athletic trainers see student-athletes on a day-to-day basis, they are well-positioned to identify potential adjustment difficulties and make appropriate referrals.

Athlete Burnout

Athlete burnout can range from physical and emotional exhaustion to the lack of control over their lives, amount of stress being put upon the athlete, and feeling pressured during practices and competition.²¹⁴ Additionally, athlete burnout symptoms include devaluation and feelings of reduced accomplishment.²¹⁵ Burnout may be especially relevant for elite student-athletes who must invest extraordinary levels of effort and time to be successful.²¹⁶ Antecedents of burnout include parental pressure, perfectionism, perceived stress, commitment, and motivation for success.²¹⁷ Additionally, untreated mental health symptoms can be mis-identified as burnout, and vice versa, as burnout can at times be accurately identified. Burnout is a social, physical, and emotional withdrawal from formerly enjoyable activities because of chronic stress and motivation concerns that are usually characterized by feelings of reduced accomplishment, emotional exhaustion, and depersonalization.²¹⁸

Intercollegiate athletics is a highly structured enterprise, leaving little room for autonomy. The lack of the need's satisfaction of autonomy, along with competence and relatedness, can contribute to student-athlete burnout.^{217,219,220} A key relationship that affects student-athlete burnout is the coach-student-athlete relationship. If this relationship is challenged in some way, particularly in communication, the student-athlete is at risk for burnout.²²¹

The athletic trainer is with student-athletes on a full-time basis, perhaps more so than coaches. Having an awareness of burnout behaviors is important for the athletic trainer to provide some early intervention or referral to address this issue facing student-athletes.

Name, Image, and Likeness (NIL)/Revenue Sharing/Transfer Portal Considerations

Student-athletes believe entering the transfer portal to be a stressful experience, akin to the recruitment process out of high school.²²² However, the transfer portal permits student-athletes to leave challenging situations that have negatively impacted their mental health.²²² Fostering strong relationships with stakeholders and student-athletes is important to creating an environment about the student-athletes health and discussions around name, image, and likeness, as well as revenue sharing decisions made by athletic departments and institutions. . While presently there is a dearth of data on the impact that NIL and revenue sharing amongst all student-athletes within an athletic department has on

student-athlete mental health, it is known that being a student-athlete is a stressful experience.^{223,1} Some of the potential intrinsic and extrinsic negative consequences of NIL participation by the collegiate student-athlete are:²²³

- Coercion to participate for the benefit of others
- Increased risk for financial, psychological abuse
- Exploitation by parents and/or agents
- Increased influence of external stakeholders (booster, sponsors)
- Recruiting dynamics of being recruited to change schools for more NIL compensation
- Pressure and time to engage in self-promotion
- Contracts to promote products and promotion of products that are detrimental to safety of student-athletes (alcohol, nicotine, marijuana promotions)
- Loss of eligibility or scholarship who unknowingly violate NIL rules
- Shifting from team success to individual success and stress of team dynamics and relationships
- Pressure from compensation
- Pressure from media when not performing at expected levels

Response to Injury and Return to Participation Considerations

Between 5-19% of injured athletes report psychological distress levels similar to individuals receiving mental health treatment.²²⁴ Emotional responses to injury include the classic “stage” model by Kubler-Ross whereby a progression of emotions following injury include denial, anger, bargaining, depression, and finally acceptance of the injury.²²⁵ Another major concern is the role injuries play on the mental health and wellness of student-athletes. Injuries are common among student-athletes, with an estimated 90% of participants sustaining at least one sports-related injury during their playing career.²²⁶ Student-athletes sustaining a time-loss injury may experience a negative effect on their mental health as the injury may be a trigger for depression, anxiety, substance misuse, sleep disturbances, and subclinical eating disorders.^{227,228}

Given this percentage of psychological concern for the returning student-athlete from injury, it is important to examine the return to play process from a holistic care perspective. The prevalence of anxiety and depression among adults with chronic pain are approximately 40%.²²⁹

This prevalence of anxiety and depression for student-athletes who are in chronic pain because of injury or overtraining should not be overlooked by the athletic trainer, team physician, or mental health professional working with student-athletes. Student-athletes who are experiencing chronic or prolonged pain from surgery, time-loss, season-ending, or career-ending injuries may benefit from a mental health screening to assess if their injury status has been a trigger for anxiety or depression. A clinical review of injury and mental health reported that athletic injury negatively impacts the mental health of athletes, and that mental health disorders can prolong injury recovery and decrease the likelihood of returning to play.²³⁰

Having a better understanding of the biopsychosocial elements and the role they play with an athlete following a critical incident such as a time-loss, season-ending, or career-ending injury will assist the athletic trainer or mental health professional to effectively assist the athlete's immediate response to the adversity-induced experience and encourage resilience.³⁷

The psychosocial aspects of returning to sport following a serious injury report that needs for autonomy and relatedness are beneficial to successful outcomes and enhance well-being in the athlete.²³¹ Athletes also exhibit various skills in coping with stressful situations and injuries, with male exhibiting more positive coping skills than female athletes, and that more skilled athletes exhibiting more positive coping skills than less skilled athletes.²³² One area of the biopsychosocial element is social support. Social support, which is an individual on who a person can rely on during periods of stress, is a key resource for student-athletes who are coping with an injury and may be protective against mental health challenges.²²⁶ Social support of an injured student-athlete may indirectly and positively influence that student-athlete's wellbeing and mitigate the stressor of injury and subsequent rehabilitation challenges.²²⁶ This suggests that cultivating a social support network for the injured student-athlete is a key component of holistic care following a time-loss injury. The athletic trainer and/or mental health professional working with injured student-athletes should inquire with whom the student-athlete turns to for social support besides those

caring for them to ensure this dynamic is in place as the student-athlete embarks on their recovery process. There are four types of support for the injured student-athlete: instrumental (tangible aid in providing care), informational (providing information and education on the injury, treatment and care process), appraisal (evaluating the progress of recovery following injury), and emotional (social support).²³³ Within this social support network are parents, friends, athletic trainer, mental health professionals, classmates, and peers such as teammates or more impactful, student-athletes of other sports who have sustained and overcame similar injuries that the newly injured student-athlete is now facing.²⁴ When caring for an injured student-athlete, especially with a time-loss injury and perhaps surgery, consideration should be given, within the limitations of confidentiality, to initiating a peer-to-peer support relationship either individually or within a group setting of time-loss injured student-athletes on a weekly basis. This group setting should be monitored and led by a mental health professional who explores on a weekly basis topic that affect injured student-athletes such as anger, depression, motivation, goal setting, managing academics while rehabilitating, uncertainty in returning to play, and other topics that are important to the group.

A bidirectional relationship exists between athlete mental health factors and sport-related orthopedic injury.^{24,234} Not only can mental health symptoms, namely anxiety and depression, contribute to injury risk²³⁵ but they can also prolong injury recovery.²³⁶ There is a growing body of evidence suggesting that eating disorders/disordered eating may play a similar role for female athletes.²³⁷ Unexpected rehabilitation trajectories can also contribute to the onset or exacerbation of mental health symptoms.²³⁷

Although not exclusively related to mental health, one component of psychological readiness for return to sport post-injury is anxiety. Athletes who are not psychologically ready for RTS may be at-risk for reinjury, experience pronounced performance declines and report negative impacts on mental health and well-being upon RTS.²³⁹ Because student-athletes often fear re-injury upon return to sport²³⁹, it is important for the athletic trainer to be attuned to this throughout the injury rehabilitation process. This may include the athletic trainer intentionally addressing psychological readiness throughout rehabilitation²⁴⁰ or referring the student-athlete to a mental health professional with training in the psychological aspects of sport injury.

Rogers et al²³⁰ refer to the relationship between sport in-

jury and mental health as a “vicious cycle” where, if unaddressed, these factors can continually negatively impact each other. Student-athletes who met with a mental health professional were more likely to have sustained an injury than non-injured student-athletes²⁴¹, which may suggest the severity of symptoms experienced by student-athletes. Although this work is correlational, it highlights the importance of athletic trainers collaborating with mental health professionals throughout the rehabilitation process. Therefore, it is important that athletic trainers be aware of and address elements of mental health and well-being, including sleep, throughout the injury rehabilitation process and return to sport, so student-athletes can be connected to effective interventions.

When the student-athlete is cleared by the sports medicine staff to return from a time-loss injury, the issue of confidence in the student-athlete to return to play should be considered. Not all student-athletes are highly confident in their return to play, and many have fear of re-injury avoidance to return to participation.²⁴² Athletic trainers and mental health professionals working with student-athletes may want to use the strategies that facilitate the student-athlete’s sense of autonomy to make decisions on return to play, competence achieved to return to sport, and relatedness with teammates, coaches, and medical staff as they approach return to play status following a time-loss injury.²⁴³ Returning injured student-athletes to sport before they are psychologically ready may lead to anxiety, fear, reinjury of the time-loss injury from which they are recovering, or injuring a different body part, decreased performance, and depression.²⁴³

One area of consideration for examining a student-athlete’s readiness psychologically returning from a time-loss injury is the use of the Injury-Psychological Readiness to Return to Sport (I-PRRS) questionnaire.^{244,245} Utilizing the I-PRRS is beneficial in addressing the student-athlete’s psychological readiness to return to participation. Using the I-PRRS questionnaire can help the athletic trainer and/or mental health professional working with injured student-athletes approaching return to play establish a measurement tool to determine the psychological readiness to return to participation. If an I-PRRS score is not high (e.g., 50 or above) perhaps it is prudent to wait a longer period before the student-athlete attempts a return to participation.

Concussions are a part of the injury spectrum in sports. Understanding the potential mental health impact of concussions is important when caring for student-athletes experiencing sports-related concussions. The risks for post-concussion comorbidities are higher in patients under age 40 with a demonstrated increased risk of developing behavioral conditions.²⁴⁶ There is evidence suggesting a link between sports-related concussion and depression symptoms in elite athletes.²⁴⁹ PTSD and depression are common after concussions.²⁵⁰ The secondary sequela of sports-related concussion among adolescents include development of depression and/or suicidality.²⁵¹ Depression, anxiety, and impulsivity are most common mental health symptoms following SRC.²⁴⁹ There is an increased for clinical depression in American football players who sustain concussions.²⁵² The prevalence of moderate to severe depression among former Division I collegiate athletes reporting three or more concussions in total was 2.4 times that of student-athletes reporting zero concussions.²⁵³ Depression and suicide ideation were positively correlated in a study of self-reported SRC by athletes, with an increase of hopelessness.²⁵⁴ Patients with concussions were found to have a higher rate of depression and psychosis in less than five years post-concussion.²⁴⁶ Healthy athletes with more prior concussions report worse psychiatric symptoms, with worse psychiatric outcomes found in female athletes.²⁵⁵

Following an SRC, management of persistent mental health symptoms should first address biopsychosocial issues.²⁴⁹ Young adults with concussions and anxiety would benefit from more education, guidance, and psychosocial rehabilitation services.²⁵⁶

Evaluative tests for mood changes utilizing validated tests such as the PHQ-9²⁵⁷ and GAD-7²⁵⁸ amongst others that may be used as appropriate following a concussion to ascertain the presence of depression or anxiety during a post-concussive period

ADHD Diagnosis, Treatment, and Documentation

The prevalence of behavior disorders includes attention deficit hyperactivity disorder (ADHD) at 8.7%. ADHD affects males to females in a three to one ratio. Chronic and impairing behavior patterns result in abnormal levels of inattention, hyperactivity or their combination.^{259,260} Attention deficit/hyperactivity disorder (ADHD) in adults is considered a chronic neurobiological syndrome that is often characterized by inappropriate levels of either symptoms of inattention, or over-activity and impulsiveness. Athletes can meet cri-

teria for ADHD sometime in both symptom categories.¹ Because of the difficulties with inattention, impulsiveness, and hyperactivity can be related to several mental health concerns, there is value in conducting a comprehensive psychological evaluation with testing to more accurately identify if ADHD is present. Though commonly diagnosed in childhood, adults as well may be diagnosed with ADHD. Common symptoms of ADHD are found in **Table 2**.

Athletic trainers often serve as an institutions site coordinator and educator for the NCAA drug testing program. Student-athletes may arrive on campus using prescribed medications that can be banned by the NCAA and other sport governing bodies. The NCAA bans classes of drugs because they can harm student-athletes and can create an unfair advantage in competition. Some legitimate medications contain NCAA banned substances, and student-athletes may need to use these medicines to support their academics and their general health.¹

Athletes should report all medications and supplements to the athletic trainer on their medical examination history form and when new prescriptions are started during the school year. One of the banned classes is stimulant medications often used in the treatment of attention deficit/hyperactivity disorder (ADHD).¹

ADHD does cause impairment in many areas of an athlete's life, including sports. Athletic trainers and conditioning coaches need to know which athletes are taking ADHD stimulant medications because of a greater risk for heat disorders, substance abuse problems, and academic challenges. It is treatable, however proper diagnosis is important. Proper referrals lead to proper diagnostic testing, diagnosis and management that will prepare the student-athlete for lifelong success. The NCAA has specific requirements for a student-athlete that wants to compete with a banned stimulant used to manage ADHD.¹

The NCAA has a procedure to review and approve legitimate use of medications that contain NCAA banned substances through a Medical Exceptions Procedure. Alternative non-banned medications for the treatment of various conditions exist and should be considered before an exception is pursued.¹

The diagnosis of adult ADHD remains clinically based utilizing clinical interviews, symptom-rating scales, and subjective reporting from patients and others. The NCAA has guidelines to help institutions ensure ade-

quate medical records are on file for student-athletes diagnosed with ADHD. These records will be used when requesting an exception for the use of a prescribed banned stimulant in the event of a student-athlete tests positive during NCAA Drug Testing.¹

The NCAA process requires the institution to submit a written report summary of comprehensive clinical evaluation with attached supporting documentation. The athletics department should have on file a completed NCAA form with the required documentation supporting the medical need for a student-athlete to be treated for ADHD with stimulant medication. This is important to meet the short time frame of medical exception process.¹ Physician documentation should include the following information:

- Diagnosis.
- Medication(s) and dosage.
- Blood pressure and pulse readings and comments.
- Note that alternative non-banned medications have been considered, and comments.
- Follow-up orders date of clinical evaluation.

As noted on the NCAA form, the clinical evaluation should include individual and family history, address any indication of mood disorders, substance abuse, and previous history of ADHD treatment, and incorporate the DSM criteria to diagnose ADHD. Attach supporting documentation, such as completed ADHD Rating Scale(s) (e.g., Connors, ASRS, CAARS) scores.¹

Resources available for review and appeal for use of a banned substance for medical reasons may be found at the following sites:

2012-13 NCAA Drug-Testing Medical Exceptions Procedures. 2012. Available online at: <http://www.ncaa.org/>.

NCAA Banned Drugs and Medical Exceptions Policy Guidelines Regarding Medical Reporting for Student-Athletes with Attention Deficit Hyperactivity Disorder (ADHD) Taking Prescribed Stimulants. 2009. Available online at: <http://www.ncaa.org/>.

NCAA Medical Exception Documentation Reporting Form to Support the Diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) and Treatment with Banned Stimulant Medication. 2012. Available online at: <http://www.ncaa.org/>.

Table 2

ADHD Signs and Symptoms

Student-athletes who have symptoms of inattention may:

- Be easily distracted, miss details, forget things, and frequently switch from one activity to another
- Have difficulty focusing on one thing
- Become bored with a test after only a few minutes, unless they are doing something enjoyable
- Have difficulty focusing attention on organizing and completing a task or learning something new
- Have trouble completing or turning in homework assignments, often losing things needed to complete tasks or assignments
- Not appearing to listen when spoken to
- Daydreaming, become easily confused, and moving slowly
- Have difficulty processing information as quickly and accurately as others
- Struggling to follow instructions

Student-athletes who have symptoms of hyperactivity may

- Fidgeting constantly
- Talking nonstop
- Dashing around, touching or playing with anything and everything in sight
- Have trouble sitting still during dinner, school, or traveling (constantly getting up and down in their seat, frequently walking around the bus or plane)
- Being constantly in motion
- Having difficulty doing quiet tasks or activities
-

Student-athletes who have symptoms of impulsivity may:

- Be very impatient
- Blurt out inappropriate comments, show their emotions without restraint, and act without regard for consequences
- Have difficulty waiting for things they want or waiting their turn in line
- Often interrupting conversations or other's activities

Source: National Institute of Mental Health

Eating Disorders and Disordered Eating in Student-Athletes

Athletic Trainers are uniquely positioned to identify eating and fueling concerns because of their frequent contact and extended relationship with student-athletes. They are positioned to notice changes in student-athletes that may spark concern and indicate the need for a referral to a medical doctor, a mental health practitioner, or a dietitian for further evaluation. Symptoms associated with eating concerns may be physical, cognitive, psychological, or behavioral.

When we think of fueling and energy awareness in the student-athlete, there are 3 primary areas of concern: Disordered Eating, Eating Disorders, and Relative Energy Deficiency in Sport.²⁶¹

Disordered Eating is the most common of these and is characterized by food and diet-related behaviors that might affect one's physical and mental health. These behaviors do not rise to the level of a diagnosable eating disorder based on the frequency and duration of the behavior or intensity of psychological symptoms. Disordered Eating can look like dieting that restricts certain food groups or macronutrients, following strict food rules or rituals, skipping meals, purging, overtraining, and periodic overeating. People with disordered eating tend to focus on weight, shape, and appearance. In a recent UK survey by The Female Athlete, they found that 74% of respondents agreed that they had "felt as though [they] do not look like an athlete," and 91% of their respondents endorsed the statement "I have worried about how many calories I am eating."

Eating disorders, on the other hand, are diagnosed with Mental Health Disorders as found in the DSM 5-TR. The symptoms and behaviors in an eating disorder may be like Disordered Eating, but the frequency, duration, and level of psychological impairment are more severe. The DSM 5-TR lists five types of eating disorders: Anorexia Nervosa, Bulimia Nervosa, Binge Eating Disorder, Avoidant Restrictive Food Intake Disorder, and Other Specified Feeding and Eating Disorders. Eating Disorders require specialized care from a team of professionals who can manage the person's dietary, medical, and psychological needs.⁶

Relative Energy Deficiency in Sport (REDs) was coined by the International Olympic Committee in

2014. This term is used to describe the consequences of Low Energy Availability on the body systems. Numerous physical symptoms and problems may result when a student-athlete is not consuming enough calories relative to their activity level and energy output. Some of these symptoms include loss of menstrual cycle, low bone density and increased risk of bone injury, lowered immune function, vitamin and mineral deficiencies, gastrointestinal disorders, psychological distress, cardiac issues, delayed growth or development, and decrease in energy. REDs can be the result of Disordered Eating or eating disorders, but they may also be the result of a student-athlete who is unaware of the caloric or nutrition requirements for their sport. Other potential contributing factors to REDs may be food insecurity, or time deficits to purchase, prepare or eat enough food to support their energy output.²⁶²

Some symptoms related to eating problems require referral first to a medical professional. Early referrals for a medical evaluation are essential as proper diagnosis, and treatment can mitigate health and performance effects. Symptoms that may indicate under fueling and would first generate a referral to a medical provider may include unusual, unexplained, or repeated injury, especially bone injury. Females with irregular or loss of menstrual cycle require an evaluation by a medical professional to evaluate for ED, DE or REDs causes. Low blood pressure or heart rate, racing heart, syncope, and shortness of breath are concerns necessitating medical referral. Gastric symptoms to watch include chronic or excessive constipation, nausea, stomach pain, or bloating. Unexplained diarrhea and fecal incontinence may be signs of overuse of laxatives. Puffy face, bloodshot eyes, or new dental problems may be indicators of purging behaviors, suggesting a referral to a medical provider for further evaluation. Lanugo is a symptom of malnutrition, and dark patches on the skin in the neck and axilla may be a sign of insulin resistance, possibly related to eating concerns. Unexplained weight loss or gain may be the most noticeable sign of a change in eating behaviors. However, this may be gradual and may take time to identify, depending on the severity of the eating issue. Additionally, just because a student-athlete is eating some food, it doesn't mean they are not on the eating disorder spectrum.

One would consider the first referral to a mental health provider for cognitive or emotional changes that affect a student-athlete's academic or sports performance or interpersonal relations. An Athletic Trainer may notice performance changes such as lower energy or mo-

tivation, lack of concentration and focus, and slower reaction times. Mood or behavior changes such as increased depression, anxiety, or irritability are also common. Rigid thinking and routines and preoccupation with food, eating or body may be a cause for concern and generate a referral to a mental health provider for further evaluation. Social isolation and reduced sex drive are other symptoms that cause distress and may be caused by DE, ED or REDs. A referral to a mental health professional for further evaluation is encouraged.

Additional changes to watch for include changes in eating behaviors. These include avoiding certain foods or meals altogether and cutting specific macronutrients such as carbohydrates or fats from their diet. Not eating in front of others or storing or hiding foods are concerning, especially when they are accompanied by other noted concerns. A pattern of trips to the bathroom immediately following meals may be an indicator of purging behavior. If an Athletic Trainer notices an increased focus on physical looks and checking behaviors with weight and mirrors, this may indicate a concern. For some, especially men, this might mean focusing on growth or loss in certain muscle groups or being 'cut' in specific ways. Working out more than scheduled training sessions for weight loss or aesthetics may be cause for concern and a referral for further evaluation is warranted. **Table 3** provides information on changes in eating behaviors.

End of Athletic Career

Only approximately 3% of college student-athletes proceed to play at the professional sport level, thus collegiate sport experience represents the final transition from their respective sport.²⁶³

Combining this sport transition with an end to an academic degree, the student-athlete experiences three significant moments at the same time: an end to an athletic career, entering a profession or work force, and making the final step from adolescence to adulthood with taking on financial and personal responsibilities for themselves. (Pierce) Student-athletes also factor in non-athletic factors on their sport termination process such as their academic and occupational (internships) careers in college, social network development.²⁶⁴ The development of effective coping skills to support student-athletes through these transitions is advisable.²⁶³ Athletic departments are encouraged to explore resiliency building programs for their respective student-athlete pop-

ulation while they are student-athletes to help support this inevitable process of transitioning out of their sport, earning a degree, and entering adulthood. Transitioning from sport can be a challenging experience for a student-athlete. One study conducted in 2019 reported that 57.3% of the participants reported a negative perception of their transition out of sport.²⁶⁵ The transition to sport retirement is associated with a variety of mental health challenges, and one study found that nearly 60% of athletes experienced significant mental health concerns as they transitioned into sport retirement.²⁶⁶ Retired student-athletes may also have higher levels of anxiety, depression, and alcohol use concerns than the general population.²⁶⁷ This is further complicated by the fact that up to 20% of athletes experience retirement from sport as a crisis, and student-athletes who do not plan for retirement are most at-risk for needing professional intervention post-retirement.²⁶⁸ Two groups of student-athletes that are particularly prone to difficulties in the transition to retirement are those with high levels of athletic identity^{269,270} and those experiencing an involuntary transition to retirement (e.g., career-ending injury, getting cut from a team.²⁷¹ It may be particularly challenging for student-athletes who are retiring from collegiate sport for mental health reasons.

Additional research into transitioning from sport by student-athletes is recommended.²⁷² This key experience for a student-athlete who may or may not be experiencing an on-going psychological concern has a great deal of influence not to be explored and additional measures to support the student-athlete be developed to assist in this transition.

Given the reported challenges that most of the student-athletes experience during their transition out of sport and the potential of mental health concerns in many student-athletes attempting to manage their emotional states during the transition, some consideration may be warranted to prepare the soon-to-be former student-athlete for their eventual transition from sport into their adult and professional lives. Some areas for consideration are the development within the athletic department of programs that 1) provide student-athletes with career counseling and guidance on developing identities outside of their sport, preferably early in their intercollegiate careers, 2) mental health support to assist student-athletes, particularly in their final year of participation, to help them navigate their athletic identity loss through psychoeducational programs and individual counseling, and 3) emphasis on life-skills in the area of educational and degree achievement to pursue a

Table 3. Changes in Eating Behaviors

	Referral to MD for Evaluation	Referral to Mental Health Professional for Evaluation	Referral to Dietitian for Evaluation	Referral to other professionals for evaluation or consult (i.e. Dentist, or Strength and Conditioning Coach)
Frequent, unexplained injury	X		x	
Stress injuries to the bone	X		x	
Irregular or lost menstrual cycle	X		x	
Low Blood Pressure or Heart Rate	X			
Shortness of Breath	X		x	
Syncope or feeling light-headed	X			
Chronic constipation	X		X	
Chronic nausea	X		x	
Unexplained diarrhea or fecal incontinence	X		x	
Frequent, unexplained stomach pain	X		x	
Frequent bloating	X		x	
Lanugo	X			
Dark patches on skin of the neck or axilla (acanthosis nigricans)	X		x	
Frequent, noticeable face bloating	X			
Frequent bloodshot eyes	X			
New, noticeable dental problems				X
Unexplained weight loss or gain	X		X	
Lower Energy or Motivation for Sport		X	X	
Lack of Concentration or Focus		X	x	
Slowed Reaction Time		X	X	
Depression or Anxiety		X		
Irritability		X		
Social Isolation		X		
Reduced Sex Drive		X		
Rigid Thinking		X		
Rigid routines		X		
Cutting out meals			X	

Cutting out specific foods or macronutrient groups (dieting)			X	
Not eating in front of others		X	X	
Hiding or hoarding food		X	X	
Frequent to the bathroom immediately after eating		X	X	
Increased checking of weight or body in the mirror		X	X	X
Excessive working out for weight loss or aesthetics		X	X	X

career path and the building of social networks outside of their athletic environment to enhance a new identity that is professional or life-lasting.

Medical Disqualification from Athletic Participation

Career-ending injuries negatively impacts a student-athlete's biopsychosocial experiences as they transition out of sport. These transitional challenges include loss of identity, a mental health decline, and a lack of external support.²⁷³ Involuntary retirement of athletes due to injury noted the psychological toll it took on the respective athletes in the survey, and the importance of having a plan B if their athletic career is cut short due to injury or medical condition.²⁷⁴

There are psychological and social challenges that medically disqualified student-athletes experience. Interventions can be initiated to meet those challenges such as during the exit examination for disqualification and introduction to creating a life plan for transitioning out of sport. This plan can be reviewed, adjusted, and enacted to fit the needs of the medically disqualified student-athlete.²⁷⁵ Some of the challenges a student-athlete experiences to their identity following their career termination including loneliness, low self-esteem, lack of self-confidence, and a potential longer adjustment period post sports life.²⁷⁶ The transition following a medical disqualification from sport is described as disruptive, problematic, and traumatic than normal sport retirement.²⁷⁷ Research on life transitions report that the extent of change associated with the individual's role, relationships, routines, and perceptions of oneself, determine the impact of the transition.²⁷⁸ The more profound those dynamics, the greater extent of the impact on the individual. For student-athletes committed to their sport, medical disqualification may impact each of these four factors in significant and life-changing ways. Student-athletes who sustain career-ending injuries can experience a range of emotional responses including loneliness, grief, identity loss, anxiety, fear, loss of confidence, depression, alcohol abuse, and suicide,²⁷⁹⁻²⁸¹ Student-athletes medically disqualified also report diminished life satisfaction five to ten years post-retirement as compared with athletes who did not retire due to injury.^{282,283} Regarding these concerns, student-athletes experiencing medical disqualification from sport should receive special considerations for their psychological well-being when experiencing a loss of participation decision due to injury.

Sports Gambling

Athletes are aware of the inner workings of a team-strategy, injuries to key players- to name a few. With the legalization of sports gambling, the risk of a student-athlete becoming involved in this area is a concern for their mental health and wellbeing. There are factors that contribute to the rise in sports gambling and risks for college student-athletes: 1) access to betting sites via the internet, 2) advertising, and 3) normalization. A student-athlete can download a betting app on their mobile phone, sign up and can start placing wagers on sporting events in less than 15 minutes. Student-athletes are inundated with sports betting site advertisements on their social media platforms. Culturally, sports betting has been normalized to the US population, particularly college-age young adults. Since 2019, over thirty U.S. jurisdictions have legalized online sports gambling, including college sports betting.²⁸⁴ Gambling conditions affect many Americans and is a concern in intercollegiate athletics. Gambling Disorder is characterized by a persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, falling under four or more of 9 criteria over a 12-month period.⁶ Problem gambling is more encompassing than the pathological Gambling Disorder because it includes gambling behaviors that may disrupt, compromise, or damage personal, family, or vocational pursuits.²⁸⁵ Pathological gamblers have greater difficulties in social and family relationships than non-gamblers, and decreases life quality, a reflection of worsening mental health.²⁸⁶

The NCAA has a strict prohibition of student-athletes to engage in gambling on sporting events of any sort.²⁸⁷ Male student-athletes consistently engage in gambling activities at higher rates than female student-athletes.²⁸⁸ Additionally, the NCAA has a prohibition for any coach, athletic trainer, administrator and athletic staff from gambling. However, a study revealed that almost 38% of athletic trainers have placed monetary bets on athletic contests despite this NCAA prohibition.²⁸⁹ Thus, the intercollegiate athletics environment is an area where sports gambling is still present and needs further attention. Collegiate student-athletes and sport fans have a higher rate of sports and other gambling than their non-sport peers.²⁹⁰ A quarter of male NCAA student-athletes have placed sports wagers despite NCAA prohibitions.²⁹¹

There is an association with alcohol-related problems with the trajectory of sports gambling frequency, thus the student-athlete who gambles on sports appears to

have an enhanced risk for developing alcohol-related issues over time. The student-athlete who is being treated for alcohol-related problems should also be screened for gambling disorders.²⁹²

Persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress, as indicated by the individual exhibiting four (or more) of the following in a 12-month period⁶:

1. Needs to gamble with increasing amounts of money to achieve the desired excitement.
2. Is restless or irritable when attempting to cut down or stop gambling.
3. Has made repeated unsuccessful efforts to control, cut back, or stop gambling.
4. Is often preoccupied with gambling (e.g., having persistent thoughts of reliving past gambling experiences, handicapping or planning the next venture, thinking of ways to get money with which to gamble).
5. Often gambles when feeling distressed (e.g., helpless, guilty, anxious, depressed).
6. After losing money gambling, often returns another day to get even (“chasing” one’s losses).
7. Lies to conceal the extent of involvement with gambling.
8. Has jeopardized or lost a significant relationship, job, or educational or career opportunity because of gambling.
9. Relies on others to provide money to relieve desperate financial situations caused by gambling.

Gambling behavior is not better explained by a manic episode by the student-athlete.

With the advent of legalized sports betting and the availability of online gambling, and considering that in the general U.S. population lifetime prevalence of gambling disorder is around 0.4%-1.0% (women: 0.2%, men at 0.6%)⁶, the possibility of a student-athlete(s) with a gambling disorder may be present and stakeholders should learn to identify those with the disorder with the above DSM-5 criteria.⁶

Assessment Strategies

Pre-Participation and/or Mental Health Incident Survey Use

When a student-athlete enters intercollegiate athletics,

annual screening for mental health disorders should be a part of the information gathered at the pre-participation examination process. The administration of the screening should be done that permits privacy of the student-athlete. During this annual screening, information about institutional services should be disseminated to all student-athletes.²⁹³

The use of mental health assessments with student-athletes has become a priority for the NCAA.²⁹⁴ Student-athletes can be asked mental health questions during their intake health history questionnaire.²⁹⁵ Some universities may choose to use the PHQ-9 to screen for depression²⁵⁷ and/or the GAD-7 for generalized anxiety²⁵⁸, although those screening instruments are for individual disorders and are not for wide-ranging mental conditions that can be screened for. However, other tools such as the Mental Health Disorders Screening Instrument for Athletes (MHDSIA)²⁹⁶ or the Sport Mental Health Assessment Tool 1 (SMHAT-1) and Sport Mental Health Recognition Tool 1 (SMHRT-1)²⁹⁷, along with other instruments can be selected to meet the needs of individual institutions dynamics.²⁹⁶ The Sport Mental Health Assessment Tool 1 (SHMAT-1) provides multiple mental health screenings within one document and provides a score of each assessment on the first page for easier assessment. The SMHAT-1 can be found at: <https://www.olympics.com/athlete365/app/uploads/2021/06/BJSM-SMHAT-1-Athlete365-2020-102411.pdf>

The pre-participation physical examination is an optimal time to ask about a prior history of mental health issues as well as to screen for common mental health issues, including depression²⁵⁷, anxiety²⁵⁸, learning disabilities and eating disorders. Questions related to nutrition, weight, performance, eating disorders, learning disabilities or other mental disorders. The pre-participation physical examination offers an opportunity to ask open-ended questions and demonstrate openness to addressing mental health issues by ‘demystifying’ mental health as an important aspect of overall health.¹

Some questions for consideration for a student-athlete’s mental health status for the pre-participation physical examination are found in **Table 4**.

It is recommended that any affirmative answers made in the mental health section of the pre-participation physical examination be brought to the attention of the physician so they may have a discussion with the student-athlete on their history of mental health issues to ascertain if any follow-up evaluation, care, or medication considerations are required to assist the student-

Table 4

Considerations for Use in Student–Athlete Pre-Participation

Medical History Mental Health Related Questions

Statement	
I often have trouble sleeping	
I wish I had more energy most days of the week	
I think about things over and over	
I feel anxious and nervous much of the time	
I often feel sad or depressed	
I struggle with being confident	
I don't feel hopeful about the future	
I have a hard time managing my emotions (frustration, anger, impatience)	
I have feelings of hurting myself or others	
Source: Carroll JFX, McGinley JJ. A screening form for identifying mental health problems in alcohol/other drug dependent persons. <i>Alcohol Treat Q.</i> 2001;19(4):33-47	
I feel stressed out or under a lot of pressure	
I feel hopeless	
I feel safe at home or residence	
I have never tried cigarettes, chewing tobacco, snuff, or dip	
In the past 30 days, I have used chewing tobacco, snuff, or dip	
I drink alcohol or use other drugs	
I have taken performance enhancing substances (including anabolic steroids)	
I have taken supplements to help me gain or lose weight	
I use a seat belt when in an automobile	
I use a helmet when riding a bike	
I use condoms during sex	
Source: Roberts, W, D Bernhardt, editors, 4th Ed. 2010. <i>Preparticipation Physical Examination</i>. American Academy of Family Physicians, American Academy of Pediatrics, American College of Sports Medicine, et al. Elk Grove, IL: American Academy of Pediatrics	

athlete.

Other instruments measuring areas that may affect the student-athlete may also be considered. These additional surveys attempt to identify a student-athlete and their identity as an athlete, and the potential self-stigmatization of seeking psychological help. Two assessment instruments for consideration designed specifically are the Athletic Identity Measurement Scale and Self-Stigma for Seeking Psychological Help Scale.

The issue of possessing and displaying athletic identity for a student-athlete has been an area of interest for researchers for thirty years.^{194,195,198} It is well established that athletes have the same rates of mental health concerns as their non-athletic peers, and that being an athlete is an identity that some student-athletes adopt.¹ Another study noted the challenges an athlete faces to their identity following their career termination, including low self-esteem, loneliness, lack of self-confidence, and longer adjustment period post sports life.²⁶⁴

The research on athletic identity has demonstrated that higher degrees of athletic identity relate to a higher motivation and commitment to a sport by the student-athlete.¹⁹⁴ Brewer and his colleagues¹⁹⁵ introduced and popularized the term “athletic identity” with both negative (not desired) and positive (desired) factors related to a high athletic identity. The Athlete Identity Measurement Scale has been a popular instrument to measure athletic identity.^{196,197} Brewer and Cornelius¹⁹⁸ developed the 7-item Athlete Identity Measurement Scale from the original 10-item Athletic Identity Measurement Scale¹⁹⁵. The 7-item instrument identifies athletic identity in three areas, social identity as an athlete, exclusivity as an athlete, and negative affectivity of being an athlete.¹⁹⁸

The Athletic Identity Measurement Scale is a useful tool for athletic trainers and mental health professionals to incorporate into their mental health and wellness measurement portfolio for student-athletes. Identifying an athlete with moderate to high athletic identity (on a scale from 7-49), the athletic trainer and mental health professional can approach an athlete following a time-loss injury that threatens their athletic identity, or if the individual athlete following a significant life stressor that threatens their mental health and wellbeing. Establishing an Athletic Identity Measurement Scale baseline for an athlete, particularly if the total score is in the 30s or 40s would alert the athletic trainer or social worker to an athlete with significant athletic identity and develop a protocol to approach that individual athlete for

psychological assistance in the event of a time-loss injury or other life stressor they may experience.

Public stigma perceptions of experiencing a psychological concern contributes to an individual to not seek assistance for their mental health disorder.²⁹⁸ This leads an individual to hide their psychological challenges from others which limits their willingness to seek help with a psychological concern (Vogel, Wade, & Hackler, 2007).²⁹⁸ Dr. David Vogel’s research associated with seeking psychological help has reported that self-stigma is a critical factor in an individual not to seek assistance for their psychological concerns and not to participate in therapy.²⁹⁸⁻³⁰¹ This work has to the development of the 10-item Self-Stigma of Seeking Psychological Help Scale.³⁰²

Association of Athletic Identity on an Athlete’s Self-Stigma for Seeking Psychological Help

Neal³⁰² explored the association between intercollegiate student-athletes with athletic identity and their self-stigma for seeking psychological help. Selected questions from a combination of the Athletic Identity Measurement Scale (AIMS) and the Self-Stigma for Seeking Psychological Help Scale (SSSPHS) were utilized in this study. Neal’s study reported that:

1. There was not a statistically significant association between a male student-athlete considering himself an athlete more than a female student-athlete. This result did not confirm the hypothesis and offers a counterpoint to the stereotypical belief that males think of themselves as athletes more than female athletes do. Thus, both male and female athletes have athletic identity on various levels that the athletic trainer and mental health professional should measure and factor in whenever either gender gets injured which may threaten their athletic identity. This result confirms what other research has reported that males do not have a stronger athletic identity than females.⁹⁰ Regardless of gender, both males and females aspired to participate in intercollegiate sports equally.

2. There was a statistically significant association that male student-athletes having a higher belief that sport is the most important part of their lives than female student-athletes. This result suggests that male athletes have a higher degree of value for sport than female athletes and should be noted when working with both genders whenever an athlete becomes injured or has been demoted in their playing status.

3. There was a weak, positive correlation between a

student-athlete feeling depressed if they were injured and not competing in sport and feeling inadequate going to a therapist for psychological help. The results of this study suggest that while an athlete is impacted emotionally by an injury, they are reluctant to seek psychological assistance. Thus, the athletic trainer, team physician, or mental health professional caring for a student-athlete who sustains a time-loss injury is prepared to empathically approach that student-athlete to start a conversation on seeking psychological help for their injury as they recover physically.

4. There was a weak, positive correlation between a student-athlete who consider themselves an athlete would feel worse about themselves if they could not solve their own problems. A student-athlete needs to be better educated on the elements of counseling and why it is potentially effective in addressing a problem that the student-athlete feels they are unable to solve on their own. The problems the student-athlete experiences may cover a wide range of general distresses of life (e.g., academics, daily schedule) or sports participation stressors (e.g., competition, conditioning, injury), to an intense problem that the person is experiencing (e.g., post or recent traumatic events, mental health disorder diagnosis), which may influence the decision for a student-athlete to seek psychological help

5. There was a strong, positive correlation between a student-athlete who most of their friends are student-athletes and feeling inferior to ask a therapist for help. A student-athlete whose friends are also teammates and/or athletes from different sports than the individual student-athlete participates suggest that the social support from those teammates is critical in reducing the self-stigma of seeking psychological help and encouraging those needing assistance to go for help. It is recommended that an educational component on mental health and wellness for all student-athletes that normalizes mental health concerns and provides information on supporting teammates needing assistance may be developed to address this finding of the Neal study.

Neal's study recommends performing an Athletic Identity Measurement Scale (AIMS) on student-athletes at their pre-participation physical examination which would assist the athletic trainer, team physician, or mental health professional working with athletes who may want to approach an athlete that reports on their AIMS intake survey a moderate to high athletic identity (30-49) who is experiencing stressors in their lives that threaten their identity as an athlete such as a time-

loss physical injury or illness, demotion on the team, academic stressors, relationship issues, or financial or family challenges, in order to provide psychological assistance to the athlete as they navigate these various and at times comorbid problems as the athlete may not seek assistance on their own.

Discussions should be made within sports medicine departments and the athletic mental health team on the use, evaluation, and any action required on survey results. Decisions include the development of protocols on survey use with risk management and the general counsel.

Behaviors to Monitor

Athletic trainers, team physicians and others in the athletic department (e.g., athletic administrators, coaches, strength and conditioning staff, academic support staff, equipment staff) are in positions to observe and interact with student-athletes daily. In most cases, athletic department personnel have the trust of the student-athlete and are someone the student-athlete turns to for advice or assistance during personal issues or crisis. Some student-athletes may seek out teammates or non-athletic students on campus, a professor, a friend or family members for help during a personal or psychological concern. Some student-athletes, however, will not be aware of how a stressor is affecting them, or if they are aware of their potential psychological concern, will not inform anyone, but may well act out in a non-verbal way to alert others that something is bothering them. Often, a student-athlete, athletic trainer, team physician, coach, teammate, or parent considers a student-athlete's "health", they are inclined to think primarily of a physical injury and its effect on participation status, and that the student-athlete's "mental health" is secondary to that of physical health. However, both physical and mental health is equally important for the student-athlete, and some medical problems often have psychological consequences.¹

Sub Clinical Considerations

Due to environmental and situational factors, clinical issues are undoubtedly higher in student-athletes when considering travel, changing sleep environments, time zone changes, and disruption in schedules. However, it is important to note health of all variations fall onto a continuum of care. Thus, sub-clinical issues can also develop creating a level of dysfunction moving the student-athlete away from their own base line of well-being.¹

Changes in mood and mental states of a sub-clinical nature impact on student-athletes and require further attention by sports medicine personnel. Symptoms can be understood by traditional markers of personal distress, maladaptive behavior, incapacitation, and odd or erratic behaviors. When considering sub-clinical states of health and the markers it is often best to understand movements away from health have volume and intensity. Movements away from the student-athletes baseline of well-being shift from soft and subtle to consistent and loud just like volume on our iPods and television sets. These shifts or changes in mental status when identified early (in their soft and subtle tones) create opportunities for prevention and thus enhance the return to premorbid functioning. Similarly, changes to the student-athlete's well-being can also be due to environmental changes such as changes to team members, coaches, support staff, or with their family of origin. Our sensitivity to identify and refer when situational changes/stress occur strengthens the possibility to move student-athletes towards resilience and significant well-being.¹

Inversely, the nature of mental health issues all along the continuum welfare to performance can and will impact others especially when cohesion is a goal and an expectation. Thus, the stress created by negative mental health states, clinical or sub-clinical, are important to anticipate and alleviate so it does not spread. This concept is no different than using situational play and practice to inoculate, protect, and assist in making student-athletes more resilient in the face of predictable stress of competition. Prevention seeks to protect, inoculate and provide avenues to become stronger in the face of challenges. Student-athlete welfare requires prevention at each point along the welfare-performance continuum not just when symptoms have grown intense and consistent. Vigilance with the identification, education, and treatment process enhances the opportunity to move toward health, reducing chances of injury, under-performance, and the enhancement of the student-athletes quality of life.¹

The vulnerabilities/challenges identified within this population lead us to propose that student-athletes encounter a different set of risks than non-athletes, and, more importantly, we believe that the extreme nature of the work student-athletes do under extreme conditions is often acknowledged. Whether we are looking at changes that are diagnosable or not, prevention is key at all points along the welfare-performance continuum.¹

Student-athletes may travel within the sub clinical area for a period, sometimes for years. However, it only

takes one or two triggering events to then throw the student-athlete into a psychological concern that impedes their life and sport participation. **Table 5** provides examples of triggering events that may exacerbate or create a psychological concern for a student-athlete.

The behaviors to monitor listed in **Table 6** are not an all-inclusive list of behaviors to monitor, but rather a list of behaviors that may be a symptom that is indicative of a psychological concern in a student-athlete. The behavior may be singular or multiple, may be subtle in appearance, and may range in severity. The need for a referral to a mental health care professional increases with the number and severity of symptoms, and/or the concerning behavior is a change from the student-athlete's normal lifestyle.¹ Tables of symptoms for the two most common mental disorders, depression and anxiety, are found in **Tables 7 and 8**.

Suicide Ideation and Screening

Globally in 2021, 746,000 deaths occurred from suicide, with more males dying from suicide with females are far more likely to attempt it.³⁰³ In the medical community in the United States, female physicians had a significantly higher suicide incidence per 100,000 person-years than the female general population in 2027 and 2019, while male physicians reported an overall significantly lower suicide incidence than the overall male population from 2017 to 2021.³⁰⁴

Among adults aged 18 or older in the United States in 2023, 5% (12.8 million) had serious thoughts of suicide (suicide ideation).^{7,8} The number of individuals who died by suicide in 2022 was the highest number ever recorded in the United States.³⁰⁵ Suicide rates for young adults, 18-24, is now the third leading of cause of death after accidents and homicide in the United States.³⁰⁶ Black youth aged 10-24 have experienced nearly a 37% increase in suicide from 2018 through 2021.³⁰⁷ Suicide rates in preteens aged 8-12 years old significantly increased 8.2% annually from 2008 to 2022, with a disproportionate increase in female suicide rate during this period.³⁰⁸

NCAA student-athlete deaths over a twenty-year period (July 1, 2002, to June 30, 2022) from any cause was studied. NCAA student-athletes from Divisions I-III deaths were tracked. There were a total of 1102 student-athlete deaths from 2002-2022. There were 128 deaths attributed to suicide. The student-athletes were predominantly male (77%) and white (59%). This placed overall student-athlete deaths from 2002 to 2022

Table 5**Triggering Events**

There are events that may serve to trigger or exacerbate a mental or emotional health concern with a student-athlete. Some examples of these triggering events are:

- Poor performance or perceived “poor” performance by the student-athlete
- Conflicts with coaches or teammates
- A debilitating injury or illness, resulting in a loss of playing time or surgery
- Concussions
- Class issues – schedule, grades, amount of work
- Lack of playing time
- Family and relationship issues
- Changes in importance of sport, expectations by self/parents, role of sport in life
- Violence – being assaulted, a victim of domestic violence, automobile accidents, or merely witnessing a personal injury or assault on a family member, friend or teammate
- Adapting to college life
- Lack of sleep
- Prior history of mental disorder
- Mental strain
- Burnout from sport or school
- Financial pressures
- Traveling
- Anticipated end of playing career
- Sudden end of career due to injury or medical condition
- Death of a loved one or close friend
- Alcohol or drug abuse
- Significant dieting or weight loss
- History of physical or sexual abuse
- Gambling issues.
- Post – Traumatic Stress Disorder (PTSD) for combat veterans who are now enrolled in col-

Table 6

Behaviors to Monitor

- Changes in eating and sleeping habits
- Unexplained weight loss/weight gain
- Drug and/or alcohol abuse
- Gambling issues
- Withdraw from social contact
- Decreased interest in activities that have been enjoyable, or taking up risky behavior
- Talking about death, dying, or “going away.”
- Loss of emotion, or sudden changes of emotion within a short period of time
- Problems concentrating, focusing, or remembering
- Frequent complaints of fatigue, illness, or being injured that prevent participation
- Unexplained wounds or deliberate self-harm
- Becoming more irritable or problems managing anger.
- Irresponsibility, lying
- Legal issues, fighting, difficulty with authority
- All-or-nothing thinking
- Negative self – talk
- Feeling out of control
- Mood swings
- Excessive worry/fear
- Agitation/Irritability
- Shaking, trembling
- Gastrointestinal complaints, headaches
- Overuse injuries/unresolved injuries/continuously being injured

Sources:

NCAA Managing Student-Athletes’ Mental Health Issues. Available online at: <http://www.NCAA.org/health-safety> NCAA

Table 7

Depression Signs and Symptoms

Individuals may feel:

- Sad
- Anxious
- Empty
- Hopeless
- Guilty
- Worthless
- Helpless
- Irritable
- Restless
- Indecisive
- Aches, pains, headaches, cramps, or digestive problems

Individuals may present with:

- Lack of energy, depressed, sad mood
- Loss of interest in activities previously enjoyed (hanging out with friends, practice, school, sex)
- Decreased performance in school or sport
- Loss of appetite or eating more than normal resulting in weight gain or weight loss
- Problems falling asleep, staying asleep or sleeping too much
- Reoccurring thoughts death, suicide or suicide attempts
- Problems concentrating, remembering information, or making decisions
- Unusual crying

Source: National Institute of Mental Health (2012)

Table 8

Anxiety Disorders – Warning Signs and Symptoms

Common anxiety signs and symptoms:

- Feeling apprehensive
- Feeling powerless
- Having a sense of impending danger, panic or doom
- Having an increased heart rate
- Breathing rapidly
- Sweating
- Trembling
- Feeling weak or tired

Other aspects to consider:

- You feel like you're worrying too much and its interfering with your work, relationships, or other parts of your life
- You feel depressed, have trouble with alcohol or drug use, or have other mental health concerns along with anxiety
- You think your anxiety could be linked to physical health problems
- You have suicidal thoughts or behaviors (seek emergency treatment immediately)

Source: Mayo Clinic

by suicide as the second leading cause of death after accidents.³⁰⁹

Other highlights from the Whelan et al study on suicide rates of NCAA student-athletes³⁰⁹:

- Suicide deaths doubled during the second of the two decades, from 7.6% from 2002-2011, to 15.3% from 2013-2020. It was during the 2012-2020 period that suicide deaths (15.3%) surpassed deaths from cardiac causes (10.3%) for second place as cause of death for NCAA student-athletes after accidents at 47.7%
- From 2011 to 2022, the incidence rate of suicide increased among female student-athletes
- The months in descending order of suicide occurrence were October, March, April, May, November, January, February, September, December, August, June, July
- The days of the week that reported the highest occurrence of suicide in descending order: Tuesday, Monday, Sunday, Wednesday, Saturday, Thursday, Friday

Student-athlete have historically been viewed as one of the healthiest members of the population.³⁰⁹ However, school pressures, stressors of participating as a student-athlete, time demands, injuries, missing family functions, and overtraining have applied stressors unique to student-athletes which can lead to depression, mental health issues, and death by suicide.^{1,2,309,310} One study reported an association between having an alcoholic “nightcap”, or a final alcoholic drink before retiring for the day, with suicide ideation.³¹¹ Given that college student-athletes drink alcohol, this reported association should be factored in when working with a student-athlete with mental health disorders and/or suicide ideation.

Suicide Ideology Screening Considerations

Utilizing measurable tools to determine suicide ideology student-athletes is a prudent consideration. One rating scale in use in mental health care is the Columbia-Suicide Severity Rating Scale (C-SSRS).³¹² The C-SSRS was designed to 1) provide definitions of suicide ideation and behavior and non-suicidal self-injurious behavior and corresponding probes, 2) quantify the full spectrum of suicide ideation and suicidal behavior and gauge suicide ideation severity over spe-

cific time periods, 3) distinguish suicidal behavior and self-injury that is not suicidal behavior, and 4) employs a user-friendly format that permits integration of information from multiple sources (e.g., direct patient interview, family and other interviews).³¹² The C-SSRS is a well-researched suicide ideation assessment tool, and has significant validity and internal consistency measurements that make this scale suitable for assessment for suicide ideation.^{312,313,314}

The assessment of suicide risk is a challenging one. One area that universities and athletic departments have trained for is an action plan designed to move a reluctant or willing suicidal person to accept professional mental health care evaluation and treatment. One such action plan is known as Question, Persuade, Refer (QPR).³¹⁵ While the work group does not endorse a specific suicide prevention program, QRP has been shown in the literature that it has efficacy as a viable option in recognizing and referring individuals with potential suicide ideology to go for professional mental health care evaluations and treatment.^{316,317}

Tables 9-11 provide further information on suicide risk and protective factors, symptoms and danger signs, and when one fears someone may take their life.

Support for Survivors of Student-Athletes who Die by Suicide

Given that suicide is the second-leading cause of death for intercollegiate student-athletes³⁰⁹, it is prudent to examine some considerations on how to navigate the aftermath of a suicide for surviving student-athletes, athletic trainers, mental health professionals working with athletes, coaches, and others impacted by the suicide. All stakeholders in the athletic department may be traumatized by the suicide of a student-athlete. Survivors of individuals who die by suicide are at a higher risk for PTSD, depression, complicated grief, suicidal thoughts, and shame associated with the suicide.^{318,319} The fear, anger, confusion, self-blame, and abandonment may make the individual reluctant to seek or comply with bereavement treatment.³¹⁹

The athletic department, working in conjunction with the sports medicine department, mental health professionals, risk management, and general counsel's office, should develop within their critical incident guidelines, post-suicide action planning to support the surviving student-athletes, athletic trainers, coaches, and associated staff. Support of these individuals at the time of bereavement is important to meet the needs of those

Table 9

Suicide: Risk and Protective Factors

A combination of individual, relational, community, and societal factors contribute to the risk of suicide. Risk factors are those characteristics associated with suicide – they may or may not be direct causes.

Risk Factors

- Family history of suicide
- Family history of child measurement
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Cultural and religious beliefs (e.g., belief that suicide is noble resolution of a personal dilemma)
- Local epidemics of suicide
- Isolation, a feeling of being cut off from other people
- Barriers to accessing mental health treatment
- Loss(relational, social, work, or financial)
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or to suicidal thoughts

Protective factors buffer individuals from suicidal thoughts and behavior. To date, protective factors have not been studied as extensively or rigorously as risk factors. Identifying and understanding protective factors are, however, equally as important as researching risk factors.

Protective Factors

- Effective clinical care for mental, physical, and substance abuse disorders
- Easy access to a variety of clinical interventions and support for help seeking
- Family and community support (connectedness)
- Support from ongoing medical and mental health care relationships
- Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes
- Cultural and religious beliefs that discourage suicide and support instincts for self-preservation

Source: Centers for Disease Control and Prevention

Table 10**Suicide: Symptoms and Danger Signs**Warning Signs of Suicide

While some suicides occur without any outward warning, most people who are suicidal do give warnings. Prevent the suicide of loved ones by learning to recognize the signs of someone at risk, taking those signs seriously and knowing how to respond to them. Risk is greater if a behavior is new or has increased and if it seems related to a painful event, loss or change. These signs may mean someone is at risk for suicide.

- Unrelenting low mood
- Pessimism
- Hopelessness
- Desperation
- Talking about wanting to die or to kill oneself
- Looking for a way to kill oneself, such as searching online or buying a gun
- Talking about feeling hopeless or having no reason to live
- Talking about feeling trapped or in unbearable pain
- Talking about being a burden to others
- Increasing the use of alcohol or drugs
- Acting anxious or agitated; behaving recklessly
- Sleeping too little or too much
- Withdrawn or feeling isolated
- Showing rage or talking about seeking revenge
- Displaying extreme mood swings

Additional Warning Signs of Suicide

- Preoccupation with death.
- Suddenly happier, calmer.
- Loss of interest in things one cares about.
- Visiting or calling people to say goodbye.
- Making arrangements; setting one's affairs in order.
- Giving things away, such as prized possessions.
- withdrawal from activities that had been enjoyable. One can help prevent suicide through early

The emotional crises that usually precede suicide are often recognizable and treatable. Although most depressed people are not suicidal, most suicidal people are depressed. Serious depression can be manifested in obvious sadness, but often it is rather expressed as a loss of pleasure or withdrawal from activities that had been enjoyable. One can help prevent suicide through early recognition and treatment of depression and other psychiatric illnesses

If you witness, hear or see anyone exhibiting the signs above, do not leave the person alone and get help IMMEDIATELY. Contact an athletic trainer, coach, or a campus mental health professional or other campus resources for assistance;

Table 11

When You Fear Someone May Take Their Life

Most suicidal individuals give some warning of their intentions. The most effective way to prevent a friend or loved one from taking his or her life is to recognize the factors that put people at risk for suicide, take warning signs seriously and know how to respond.

Psychiatric Disorders

- More than 90 percent of people who kill themselves are suffering from one or more psychiatric disorders.
- Depression and the other mental disorders that may lead to suicide are -- in most cases -- both recognizable and treatable. Remember, depression can be lethal.
- The core symptoms of major depression are a “down” or depressed mood most of the day or a loss of interest or pleasure in activities that were previously enjoyed for at least two weeks
- Between 25-50 percent of people who kill themselves had previously attempted suicide. Those who have made suicide attempts are at higher risk for actually taking their own lives.

The signs that most directly warn of suicide include:

- Threatening to hurt or kill oneself
- Looking for ways to kill oneself (weapons, pills or other means)
- Talking or writing about death, dying or suicide
- Has made plans or preparations for a potentially serious attempt

Other warning signs include expressions or other indications of certain intense feelings in addition to depression, in particular:

- Insomnia
- Intense anxiety, usually exhibited as psychic pain or internal tension, as well as panic attacks
- Feeling desperate or trapped – like there’s no way out
- Feeling hopeless
- Feeling there’s no reason or purpose to live
- Rage or anger

Certain behaviors can also serve as warning signs, particularly when they are not characteristic of the person’s normal behavior. These include:

- Acting reckless or engaging in risky activities
- Engaging in violent or self-destructive behavior
- Increasing alcohol or drug use
- Withdrawing from friends or family

impacted by the student-athlete suicide.^{320,321} Athletic trainers experiencing a critical incident such as the suicide of a student-athlete they knew or cared for can contact the NATA's ATs Care Program³²² for assistance at: <https://www.nata.org/membership/about-membership/member-resources/ats-care>

Considerations on Approaching a Student-Athlete with a Concern over Their Mental Health

Ethical Considerations

Team physicians, athletic trainers, and mental health professionals working with student-athletes have an ethical duty to those they care for and provide services. The following is a brief review of those ethical duties that need to be kept in mind when considering approaching a student-athlete with a potential psychological concern or responding appropriately to a student-athlete who requests mental health care.

Team physicians caring for student-athletes should adhere to the American Medical Association Code of Medical Ethics 1.2.5 regarding Sports Medicine, "Physicians who serve in a medical capacity at athletic, sporting, or other physically demanding events should protect the health and safety of participants. In this capacity, physicians should: (a) Base their judgment about an individual's participation solely on medical considerations (b) Not allow the desires of spectators, promoters of the event, or even the injured individual to govern a decision about whether to remove the participant from the event."³²³ The athletic trainer caring for student-athletes has an ethical duty to safeguard the long and short-term well-being of the student-athlete.³²⁴⁻³²⁶ Mental health professionals should also adhere to their ethical principles when providing services to student-athletes. Members of the American Psychological Association should "Psychologists strive to benefit those with whom they work and take care to do no harm. In their professional actions, psychologists seek to safeguard the welfare and rights of those with whom they interact professionally and other affected persons."³²⁷ Social work professionals providing therapy to collegiate athletes should adhere to their code of ethics core values of service, dignity and worth of the person, and the importance of human relationships.³²⁸ The American Counseling Association's code of ethics states, "Counseling is a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and ca-

reer goals."³²⁹ The American Association for Marriage and Family Therapy has in its code of ethics preamble, a commitment to "service, advocacy, and public participation."³³⁰

A "social contract" exists between the interdisciplinary medical/mental health teams to the student-athlete, where the professional values of competence, altruistic service, integrity, promotion of the public good, accountability, and transparency are hallmarks of what these teams provide the student-athlete in the social contract.^{325,331,332} Ethical practice helps the provider establish professional excellence, making the student-athlete the primacy of their care.³²⁴

Keeping professional ethics based on values in the forefront of professional practice helps clarify the duty athletic trainers, team physicians, and mental health professionals have to student-athletes in providing services not because it is a mandate from the NCAA, but because it fulfills the "social contract" to that individual student-athlete and their psychological concerns.

The Role of Therapeutic Alliance

The quality of a student-athlete-athletic trainer/team physician/ mental health professional therapeutic alliance is a reliable predictor of a positive clinical outcome.³³³ The therapeutic alliance can be viewed as the quality of involvement between a provider and a patient/client as reflected in their personal rapport and task teamwork, and that the provider's contribution to the therapeutic alliance is a key element.³³⁴ Clinicians should devote considerable effort to building and maintaining the therapeutic alliance.³³⁴ The athletic trainer, team physician, and mental health professional should not assume that their views of the therapeutic relationship and care are shared by the student-athlete and should seek the student-athlete's perspective on working together as a team and if the care provided is helpful.³³⁵ Personal attributes found to positively contribute to therapeutic alliance include honesty, flexibility, trustworthy, confident, respectful, interested, warm, and open. Reflection, exploration, noting past therapy success, and attending to a patient's experience were found to be helpful techniques when developing therapeutic alliance with patients.³³⁴ The provider of care should be reliable and committed, skilled and competent, and empathetic to develop trust and enhance therapeutic alliance.³³⁶

Approaching a student-athlete with a concern over their mental well-being can be an uncomfortable experience.

However, the health and wellness of the student-athlete is paramount. It is advisable that the athletic trainer and/or mental health professional that decides to approach the student-athlete with a mental health concern prepare themselves for that moment. Commander Rorke Denver (US Navy, Ret.) has emphasized this approach in his work and presentations that “calm is contagious.”³³⁷ It is helpful that the athletic trainer and/or mental health professional be calm and focused when approaching the student-athlete in a dialogue of concern for them as a person. By expressing a state of calm when approaching the student-athlete, the student-athlete, who may be suffering from self-stigmatization, may reciprocate and engage in meaningful conversation. It is important to have facts correct, with context, relative to the behavior of concern, before arranging a private meeting with the student-athlete. The conversation should focus on the student-athlete as a person, not as an athlete.³³⁸⁻³⁴⁰ Empathetic listening and encouraging the student-athlete to talk about what is happening is essential. Table 12 provides a list of open-ended questions to consider asking the student-athlete to encourage them to discuss their situation. Encouraging a student-athlete to consider a mental health evaluation can be challenging, given the stubborn stigma that is still attached to receiving mental health care.³⁴¹ Though student-athletes experience as much or more psychological distress as non-athletes, research indicates student-athletes use professional mental health services less than non-athletes.³⁴²

A helpful component in student-athletes receiving a mental health evaluation and care is encouraging them to start the process. Pointing out that mental health is as important as physical health is one line of reasoning that may help the reticent student-athlete to seek help for their psychological concern. It is not uncommon for a person struggling with their mental health to need encouragement to see the benefits of counseling. This is where the therapeutic alliance becomes so valuable when encouraging the student-athlete to be open-minded to the benefits of counseling. Borrowing the lyrics from “Silent Lucidity”, “If you open your mind for me, you won’t rely on open eyes to see. The walls you built within come tumbling down, and a new world will begin.”³⁴³, the athletic trainer or team physician can employ their therapeutic alliance to encourage the student-athlete to trust their recommendation to start something that is maybe unknown to student-athlete, and due to stigma, scary. The athletic trainer and team physician are requesting the student-athlete to be open-minded to try something they can’t yet envision to help their

lives. Encouraging the student-athlete to examine their psychological concern with counseling to address the elements and barriers in their life causing distress and building a new way of life that is more effective and enjoyable is a critical therapeutic alliance skill for the athletic trainer and team physician to possess and refine. Addressing stigma in discussing patient-centered care to produce positive outcomes with the student-athlete along with providing patient education of mental health services that could enhance adherence and satisfaction with mental health therapy may be helpful.³⁴⁴

Assisting the student-athlete in accessing the mental health care system at the institution or community through the pre-arrangement of services eases the transition from deciding to go for help to meeting a mental health care professional, is the second component of getting a student-athlete for help for their psychological concern. It is important to note that in most cases, unless there is an imminent risk of harm to them and/or others, a student-athlete cannot be compelled to report for a mental health evaluation. In cases where the student-athlete is reticent to go for a mental health evaluation, the following suggestions may be made to the student-athlete:

- Express confidence in the mental health profession.
- Clarify what counseling is and how it could help the student-athletes overall health
- Offer to accompany the student-athlete to the appointment
- Emphasize the confidentiality of mental health care and referral
- Be persistent, but not pushy, in recommending a mental health evaluation

Athletic trainers in college athletics play a crucial role in the physical and psychological well-being of student-athletes. While their primary responsibilities often focus on injury prevention, rehabilitation, and performance enhancement, the importance of their role in promoting mental health is increasingly recognized and supported.¹ As this role expands, Athletic trainers must also be mindful of their own mental health, as professional commitment, burnout, job satisfaction, and career longevity among medical professionals in sport is a well-documented issue.^{345,346} In recent analysis in Australia, elite-level sport coaches and high-performance support staff reported levels of psychological distress and susceptibility to the pressures of high-performance

Table 12 Questions to Ask Approaching The Student-Athlete with A Potential Mental Health Issue
• “Describe how are things going for you?” • “Describe how life is treating you right now.” • “Tell me what is going on.” • “Your behavior (mention the incident or incidents) has me concerned for you. Can you tell me what is going on, or is there something I need to understand or know why this incident happened?” • “Tell me more (about the incident).” • “How do you feel about this (the incident or the facts presented).” • “Tell me how those cuts (or other wounds) got there.” • “Perhaps you would like to talk to someone about this issue?” • “I want to help you, but this type of issue is beyond my scope as (coach, athletic trainer, administrator), but I know how to refer you to someone who can help.” Source: NCAA Guideline 2o: Mental Health: Interventions for Intercollegiate Athletics. NCAA Sports Medicine Handbook 2012-2013. Available online at: http://www.NCAA.org/health-safety

sporting environments similar to those previously reported among elite-level athletes.³⁴⁷ By modeling mentally-healthy behaviors, such as emotional regulation, stress management, advocacy, and open discussions about mental health, ATs can greatly impact athletes' psychological readiness, resilience, and performance as well as improve the sporting environments they work in.

Mental Status Exam

Approaching a student-athlete who seems unduly troubled may need a mental status examination (MSE). The MSE is a structural assessment of a student-athlete's cognitive and behavior functioning.³⁴⁸

The MSE includes a description of the student-athlete's appearance and general behavior, level of attention and consciousness, speech and motor activity, mood and affect, thought perception, insight and attitude, the examiner's reaction, and higher cognitive abilities.³⁴⁸ The MSE is performed through an unstructured observation made during the interaction or examination.³⁴⁸ The MSE is a subjective assessment of the student-athlete, which varies from one provider to another provider.³⁴⁹ Student-athletes who are agitated when subtly performing a MSE should be referred for professional mental health care evaluations.

Self-Care Considerations for Professionals Working with Student-Athletes

Given the high-pressure environment of collegiate athletics, modeling mentally healthy behaviors can positively impact athletes' psychological well-being. Bandura's Social Cognitive Theory³⁵⁰ posits that individuals observe and imitate behaviors demonstrated by influential figures in their environment. Athletic trainers, as the most frequent point of healthcare contact for athletes and coaches, have a unique opportunity to influence mental health and wellness behaviors.³⁵¹ Limited research has specifically focused on role-modeling positive mental health behaviors in athletic environments. However, in the context of physical wellness, research has shown strong support suggesting that healthcare providers that maintain an active lifestyle are more likely to provide better, more credible, and motivating preventive counseling to their patients.³⁵² It is reasonable to assume the same applies to healthcare providers in terms of mental health and holistic well-being. Through the modeling of emotional regulation, healthy coping strategies, and stress management techniques, ATs can help establish an environment where

mental wellness is viewed as foundational to physical performance.

While research has primarily focused on identifying the stressors that ATs experience, there continues to be a need for research, education, and advocacy around how ATs can best navigate this environment in support of their own mental health and wellness while supporting the care of others. ATs face a plethora of factors contributing to their own mental health challenges, including low pay and work-life balance issues, high-stress environments, emotional demands of caregiving roles, inadequate staffing, and limited access to mental health support resources to address personal and professional stressors.³⁵³ Relevant mental health education directed to ATs, should also include training and mentoring around self-care strategies for caregivers. Some effective mitigation strategies involve fostering emotional granularity, healthy work-life boundary setting, and formal policy design and institutional support.^{354,355}

While the benefits of adopting mental health supportive behaviors are clear, athletic trainers face challenges in implementing these practices. Limited time, institutional pressures, limited perceived control, and a culture that prioritizes physical performance over mental well-being can hinder efforts to integrate psychological support into athletic training routines. As the landscape of collegiate sport is in flux due to the legal rulings regarding "Name, Image, and Likeness" (NIL) the opportunity to effect individual and structural changes toward a performance model of sport directed at human flourishing and a culture of excellence may be upon us.³⁵⁶ Organizational and institutional advocacy, ongoing continuing education and mentorship, and greater integration and collaboration with sport psychologists can also help athletic trainers maintain their own well-being while effectively supporting the needs of the athletes in their care.³⁵⁷ The often quoted saying attributed to John Selden, "Do as I say, not as I do,"³⁵⁵ can no longer be used as an excuse to avoid personal and professional responsibility to care for oneself. To enact meaningful change on the system toward a health-oriented high-performance model, all members, especially the professional healthcare practitioners in the system, would be better served by the perspective that all members in the system are considered "performers," not just the athletes in competition. As influential ambassadors of health and wellbeing, ATs would be better served to follow the idiom of "you must fill your own well before drawing water for others." Creating healthy environment is also consistent with the NCAA Mental Health

Best Practices released in 2024.

The Role of the Team Physician in Student-Athlete Mental Health Care and Referral

70% of Americans polled in 2024 said they preferred that a healthcare provider ask about their mental health along with their physical health during medical appointments.³⁵⁸ 76% of women and 65% of men wished to be asked about both physical and mental health in the survey.³⁵⁸ Only 2 in 3 Americans (66%) reported in the survey that a primary care physician had asked them about their mental health during their last physician appointment.³⁵⁸ Lastly, the study revealed that 74% of Americans are generally comfortable with bringing up mental health issues with a primary care physician.³⁵⁸ The data is generic and does not address college-aged individuals specifically.

The average age of a student-athlete entering college is eighteen. It is important to realize that the percent of adults age 18 and older with regular feelings of worry, nervousness, or anxiety is 12.5%, and 5% have regular feelings of depression.³⁵⁹ However, another study revealed that student-athletes v. general students' population, student-athletes were less likely to be anxious and depressed than their non-athlete peers.³⁶⁰

There is much past literature addressing the transition from high school to college. "Leaving the nest", independence, homesickness, new peers and a more permissive social environment, more demanding academics. There is no question that stressors for student athletes add an additional challenge where self-image, coaches as surrogate parents and team orientation can worsen existing or create new depression and/or anxiety. This occurs at the baseline level for the student athlete in all sports.³⁶¹ When a student-athlete enters college, often the team physician becomes their primary healthcare provider. Team physicians, as the director of sports medicine services in intercollegiate athletics, are an integral member of the mental health team. Physicians discuss psychological issues with injured student-athletes fairly frequently, although there is a wide range of comfort and perceived competence on the part of the physician.³⁶²

Sports medicine providers frequently encounter psychological issues with student-athletes. Mental health remains an area of concern and emphasis by the NCAA. Starting in November 2025, NCAA member institutions are legislatively required to make mental health

services and resources to their student-athletes consistent with the NCAA Inter-Association Consensus Document, Mental Health Best Practices: Understanding and Supporting Student-Athlete Mental Health, second edition.³⁶³

Some team physicians prescribe medications to student-athletes for mental health issues and encourage the referral for counseling by a mental health care professional. In many cases, the team physician sees a student-athlete for a psychological concern on the recommendation of the athletic trainer, coach, or parent of the student-athlete. The team physicians should rely on their experience and limitation in expertise in evaluating and managing a student-athlete with a psychological concern and working with mental health care professionals in developing the appropriate plan of care relative to medication and/or counseling for the student-athlete.

The sports medicine team, including athletic training staff and team physicians, are the initial touchpoint regarding mental health challenges in the student athlete. Incoming athletes can be screened with a validated tool for depression (such as the PHQ-9) and anxiety (such as the GAD-7).^{257,258} Some institutions use AUDIT-C for alcohol screening and SCOFF for eating disorder screen, ADHD Self Reporting Scale (ASRS).³⁶⁴ The SMHAT-1 is a comprehensive mental health screening tool developed by the IOC. Using the symptom score of the Sideline Concussion Assessment Tool Version 6 may also correlate with concerns for mental health and the need for further assessment with one of the above validated screening tools.³⁶⁵ The challenging issue is what to do with a positive screen and having the resources available. A team approach to addressing mental health includes access to athletic training staff, team physician, therapist or psychologist versed in the unique challenges of student-athletes.

Knowing the history of the incoming athlete is vital. If a student athlete is already receiving mental health services from home or prior institution, coordinating previous care, and potentially taking over their mental health care while the athlete is at your institution as therapists often cannot conduct therapy sessions across state borders and controlled substances cannot be prescribed across state lines.

Coordinating mental health care in the graduating student-athlete can pose a multifaceted challenge: geographically, financially, and self-driven behaviors. Attempting to coordinate care and provide a warm

handoff to mental health providers where the departing athlete is re-settling is vital in maintaining the success of treatment.

The team physician should have a working knowledge of and an involvement with the following mental health issues when providing care to student-athletes³⁶¹:

- Psychological and sociocultural antecedents and risk factors of athletic injury and illness
- Psychological issues accompanying athletic injury treatment and illness, rehabilitation, and return-to-play considerations
- Recognition of important features of selecting psychological issues and how these may present in student-athletes and affect health and wellness.
- Selected psychological issues in student-athletes which include:
 - Depression
 - Anxiety/Stress
 - Disordered Eating/Eating Disorders
 - Attention Deficit/Hyperactivity Disorder (ADHD)
 - Substance Use Disorders

The team physician should factor in emotional reactions accompanying athletic injuries and medical conditions, and that these reactions may resolve or become problematic, potentially impacting a student-athlete's recovery and return-to-play status.^{366,367} Areas of consideration for the team physician working with athletic trainers and licensed mental health professionals^{361,366}:

- Recognize that psychological factors play a role in injury rehabilitation and illness recovery
- Rehabilitation and recovery programs should incorporate psychological strategies
- Physical clearance in return-to-play decisions may not correlate with psychological readiness to return to participation and needs to be discussed with the student-athlete, athletic trainer, and if appropriate, the mental health professional working with student-athletes
- Assist in educating the student-athlete, parents, friends, teammates, and others about having a supportive social network during recovery from injury or illness and importance of psychological treat-

ment when necessary

- Collaborate with and coordinate the athletic care network to monitor the psychological readiness of student-athletes return to participation
- Encourage involvement of mental health providers in educating student-athletes, athletic trainers, coaches, and athletic department staff and administrators about psychological issues
- Maintain confidentiality of the student-athlete seeking or receiving mental health services, recognizing psychological issues are particularly sensitive for the student-athlete and all stakeholders

It is prudent that the team physicians and consulting psychiatrists consider potential adverse effects of psychotropic medications. There is an array of psychotropic medications that are used to treat mental health disorders, and it is up to the physician to determine the appropriate medication for use with the student-athlete's mental health disorder diagnosis. It is recommended that the physician prescribed the medication have an awareness of potential side effects and that the athletic trainer caring for student-athletes taking psychotropic medication be informed on potential side-effects to watch for to ensure the student-athlete's safety. For example, certain psychotropic therapeutic medications may impact on a student-athlete's ability to manage heat. Several psychotropic drug classes, particularly anti-psychotic medications, may expose a student-athlete to impaired heat tolerance and have been associated with classical syndrome of hyperthermia (heat exhaustion, heat stroke), skeletal muscle hypermetabolism, rhabdomyolysis, and altered mental status.^{368,369} Individuals with mood disorders (e.g., depression) had an increased chance for hospitalization by about 40% during periods of high heat.³⁷⁰ The prescribing physician should have regular interval follow ups with the athlete whom is being prescribed the psychotropic medication.

The team physician and athletic trainer providing care for a student-athlete who is using psychotropic medications, particularly anti-psychotic medications, needs to be aware of potential heat intolerance risk with their use, and take measures to ensure the student-athlete is educated on this risk, stays well hydrated, and monitored for early signs of heat exhaustion and heat stroke when exercising in hot environments.

Another recent study investigated the incidence of sud-

den cardiac death (SCD) in patients with psychiatric disorders aged 18-90 in Denmark.³⁷¹ The study reported that patients taking anti-depressant medication for 1-5 years had a 56% increase in SCD than adults not taking anti-depressant medication, and patients taking an anti-depressant for long period of time had a higher risk of SCD. . The study also noted that patients with schizophrenic disease had the highest rates of SCD.³⁷¹ Having an awareness of studies that report potential association of psychotropic medication and adverse medical conditions is an important feature of follow-up action by the athletic trainer and physician when providing care for student-athletes consuming psychotropic medications.

REFERRAL & ACTION

Considerations in Developing an Athletic Counseling Team

In 2019 the NCAA passed legislation that requires all schools in the Division I Big 5 Conferences to make mental health services and resources available through the athletics department or the school's health services or counseling services department.

Since then, universities across various divisions and conferences have worked to make mental health resources available to student-athletes. However, the way schools implement these resources varies. This variation is due to differences in student body size, whether a university is public or private, and the amount of funding available. These discrepancies lead schools to adopt different approaches to meet their specific needs.

In 2024 the NCAA released an updated Mental Health Best Practices.³⁶³ This update provided updated guidance to universities and required all schools to make mental health services and resources available to student-athletes consistent with the Mental Health Best Practices. This update recommended that the following elements be included in their Mental Health plan for athletics: create healthy environments that support mental health and promote well-being, procedures for identification of student-athletes with mental health symptoms and disorders, including mental health screening tools, mental health action plans that outline referral pathways of student-athletes to qualified providers and licensure of providers who oversee and manage student-athlete mental health.

This document will address important considerations in developing and providing mental health resources to collegiate student-athletes. These considerations include location of services, model of care, size and

makeup of the mental health team, confidentiality and communication, services provided, identification and management of student-athletes with mental health disorders or symptoms, and management of student-athlete mental health crises.

Convenience and accessibility are important considerations in the provision of mental health services for student-athletes. Given their demanding schedules, a convenient location can significantly enhance access and utilization of these services.

Universities employ various approaches to ensure the availability of mental health support for student-athletes. One model is the Embedded Mental Health Provider/Team located within the Athletic Department. These providers may be employed by the Athletics Department, the Campus Counseling Center, or contracted with external organizations. The benefits of having an embedded mental health provider include increased availability and easy access for athletes, familiarity with the unique culture and challenges of collegiate athletics, and ease of communication with Athletic Medicine, Coaches, academic counselors, and other stakeholders. These services are generally free or low-cost and do not have session or time limits for care provided.

Providing mental health services at University Counseling Centers is another choice. University Counseling Centers typically have a larger, more diverse staff that may result in more available appointments and the ability to address the diversity within student-athlete populations as it relates to identity and presenting problems. Their services are typically free or low cost. Challenges with this model could include location and hours that may not be convenient for student-athletes, providers may not have specialized knowledge about the challenges of the student-athlete and the culture of athletics and may not have easy lines of communication with other stakeholders in the athletic department. They often have session or time limits in the care they provide.

Using external providers is another option to ensure student-athletes' access to mental health services. This can take many forms. Some options include a small group of contracted external providers (who may also be physically located within athletic or sports medicine departments) a list of local providers and clinics given to student-athletes, or the use of Apps and other resources for online support or to locate providers in the community. Payment is a consideration in this model. In some cases, the university or athletic department may subsidize the care, in others, the student-ath-

lete is responsible for the cost – either out of pocket or by using their insurance. Beyond cost, other concerns with this model would be access and availability for student-athletes, awareness about the culture of athletics, and communication with other stakeholders in the athletic department, which includes appropriate coordination of care.

A hybrid model includes limited embedded services for services such as mental health education, screening, assessment, and management of crises, with referrals to external providers for ongoing clinical care or other services previously identified (e.g., mental health education).

Relationship with Athletic Medicine, Collaborative Care Approach, Confidentiality, and Communication

Insights from the broader medical literature suggest that interprofessional collaboration can benefit both the student-athlete and staff. Research in this area, particularly within NCAA athletic departments, is still in its early stages but the potential benefits of a collaborative care model include a more holistic approach to care, improved responses to emergencies, stronger trust and shared knowledge among professionals, and enhanced well-being for student-athletes.

In athletic settings, the care team may include professionals from diverse backgrounds, such as athletic trainers, sports psychologists, mental health therapists, sports physicians, psychiatrists, strength and conditioning coaches, administration, dietitians, coaches, and faculty representatives. Although attitudes towards interprofessional care in athletics are generally positive, researchers have identified several barriers to implementing interprofessional collaboration (IPC) in sports medicine. These barriers often arise from interpersonal and structural issues, including communication challenges between professions, role ambiguity, differing values and ethical standards, traditional professional hierarchies, and the commitment of various stakeholders.

Effective communication and collaboration among mental health providers and other key stakeholders in the lives of student-athletes are essential for identifying those in crisis and addressing their mental health needs. This communication is vital for identifying potential crises, managing those crises, providing care, and ensuring a safe return to play. Additional areas where a collaborative model would be helpful are in the care of the injured athlete and treating and monitoring eating disorders or REDs. Mental health staff may also

be asked to participate in withhold from play, return to play, medical retirement, and other eligibility decisions related to mental health diagnoses. An embedded team or individual will likely have more success being part of a collaborative care model based on proximity, schedule matching, and understanding of the culture of collegiate athletics.

While proximity makes communication easier, another form of communication is through a shared medical record. Communication via a shared electronic medical record can be efficient and ensure collaboration across athletic medicine.

Mental health information is a protected class of information. As such, student-athletes must be informed of, and consent to, the release of their information to others. Student-athletes need to be educated about who has access to their information in the medical record and this should be reflected in their Consent for Treatment. With a collaborative care team, all disciplines who have access to the record and who may communicate with the mental health provider must be identified. Separate Release of Information forms should be collected when there is a need to communicate with others such as coaches, family, and academic advisors that do not have access to the medical record or who may not be part of the collaborative care team.

Mental health providers must be licensed in the state where they are providing care. Mental health counselors may be Licensed Psychologists, Clinical Social Workers, Clinical Mental Health Counselors, or Licensed Marriage and Family Counselors.

A robust team of counselors should be both culturally diverse and have varied areas of expertise including eating disorders, injury recovery, crisis management, trauma-informed care, sports performance, and group and team dynamics, and understanding the culture of collegiate athletics with appropriate training regarding student-athlete mental health.

The size and configuration of the mental health team will vary based on the model of care and department resources. A team that is externally located – for example using CAPS or community providers – may have unlimited resources for counseling. With this model, the Emergency Action Plan will need to identify who is designated to manage mental health crises. With this model, it will also be important to identify individuals and processes to ensure that a mental health profession is involved in the application of NCAA Mental Health

Best Practices 1 & 2.

Research shows that between 30-44% of student-athletes report feeling depressed or anxious. An embedded model created to fully address the mental health counseling needs of student-athletes and address all the recommendations in the NCAA Mental Health Best Practices would need to be quite robust. A staffing recommendation may be a ratio of 1:100 counselors to student-athletes or, if using a team assignment model 1:3 or 1:4 counselors per team, depending on team size and utilization of mental health services. This would allow for enough providers to address the clinical mental health needs of the approximate 1/3 of the student-athlete population identified with mental health symptoms while also giving time to participate in regular mental health screening, engage with the collaborative care team in identifying and addressing student-athletes with mental health symptoms or in crisis, and provide education and program to create healthy environments that support mental health and promote well-being.

Mental health providers must be licensed in the state where they are providing care or hold an authorization for legal interjurisdictional practice.

It is recommended that a psychiatrist trained in the special needs of student-athletes be part of the Mental Health team. This can be done by engaging a psychiatrist within the Student Health Services or contracting with a local psychiatrist. Psychiatrists are needed for consultation and treatment for student-athletes with severe or complicated mental illness. They also prescribe medications that some primary care physicians do not feel comfortable prescribing, and they provide important documentation to meet regulations within the NCAA or academic institution. Psychiatrists may also have admitting privileges and can be engaged in the management of a mental health crisis that may require emergency evaluation and hospitalization.

The mental health team and Athletic Medicine must have a relationship with a nearby hospital and a protocol to manage emergency evaluations and admissions. A designated lead to coordinate with the emergency department or the hospital system from assessment to admission and through to discharge will be important to ensure effective management of the student-athlete in crisis. This lead may be the psychiatrist or a member of the mental health team.

The Emergency Action Plans should be developed and overseen by a licensed mental health provider. The

mental health provider is responsible for training Athletic Medicine staff, coaches, and other Athletic Departments on the implementation of the plan. NCAA Mental Health Best practices recommend that the Emergency Action Plan is rehearsed at least annually. The licensed mental health professional must lead the annual rehearsal, and any training related to the plan.

Mental Health Emergency Action Plans should include identification of mental health signs and symptoms, triage guidance, a decision matrix on what to do following triage and communication pathways between the mental health provider, Athletic Department stakeholders and emergency departments or hospital symptoms. The EAP must also include after-hours contact information and local mental health resources.

Services provided by Mental Health Provider will be dependent on the size of the university, the model they are using to implement the best mental health practices and resources available to the university athletic department. Minimum service to meet NCAA Best Practices is to have a team that works with athletics and the university to create a healthy environment that supports mental health and promotes well-being is an important part of the mental health team. This includes education and training for student-athletes, coaches, the athletic medicine team, and other stakeholders in the department that includes stigma reduction, signs and symptoms, resources, and crisis management.

Per NCAA 2024 Mental Health Best Practices, all student-athletes should be screened for mental health symptoms or disorders at least annually. It is recommended that mental health professionals be present or readily available when this screening occurs to manage any severe or crisis symptoms identified at that time. One way to accommodate this is to have mental health staff present at pre-participation physicals or team orientations.

Individual mental health counseling services are essential for student-athletes. These services help them address their mental health needs and manage typical adjustment challenges faced by young adults. Additionally, a mental health provider can assist student-athletes in navigating the unique pressures associated with their lives. Mental health providers with dual training may also provide individualized sport performance counseling services.

Finally, it is important to ensure that student-athletes have access to services that screen, counsel, or refer

for alcohol and other drug misuse or addiction, eating disorders and REDs, gambling and other maladaptive behaviors. This could be managed in-house or referred to following initial assessment and triage.

If a university doesn't have an in-house student-athlete counseling team, the use of the campus counseling center is recommended. Although college student athletes experience mental health concerns at rates similar to those of non-student athletes, student athletes typically underutilize available mental health care resources and are recognized as an underrepresented population within campus counseling services.³⁷² It has been suggested that one reason student-athletes are reluctant to seek counseling is because they are concerned about the negative perception coaches, teammates, student peers, and fans may hold if they become aware the student-athlete is seeking mental health counseling.³⁷³ (Brewer et al) More specifically, many student-athletes report that they are concerned that their status on the team, including playing time, may be negatively impacted if their coaches become aware of the nature of their mental health problems.³⁷⁴

While privacy and confidentiality form the basis of any therapeutic relationship, the concerns regarding student-athletes highlight the unique circumstances regarding their confidentiality when they seek mental health services on a college campus. The privacy and confidentiality guidelines that govern the work of therapists are determined by relevant professional codes of conduct, as well as federal and state laws.³⁷⁵

Referral of a Student-Athlete with a Psychological Concern for a Mental Health Evaluation and Treatment

Most interventions into student-athlete support have centered on physical performance and academics.³⁷⁶ There is a need for skilled mental health professionals with experience in working with student-athletes assist them with mental disorders, helping the athlete to develop a range of self-management skills to manage their psychological distress.³⁷⁷ Student-athletes report that they do not feel comfortable seeking professional mental health services³⁷⁸, and that athletes not seeking al health care cites stigma, lack of time, and lack of perceived need.³⁷⁹ Educating athletes on components to encourage college athletes to feel comfortable seeking mental health assistance may be helpful. It is imperative that healthcare providers cooperate, communicate, and collaborate with each other and with mental healthcare professionals to provide quality care to student-athletes.^{380,381}

An area for consideration in referring student-athletes with a psychological concern is to prophylactically simulate the referral process with athletic training staff members, especially with those athletic training staff members who routinely are not involved in referrals. This way, any athletic training staff member may refer a student-athlete into mental health evaluations and care. Simulation exercises between the athletic training staff and mental health professionals at the institution working towards inter-professional collaboration can result in higher SPICE-R scores in preparation for real-world recognition and referral of student-athletes.³⁸⁰

Routine and Emergent Mental Health Referrals

Once the student-athlete has been approached and agrees to go for a psychological evaluation or self-reports wanting to be evaluated for a psychological concern, they should be referred as soon as possible to a mental health care professional.¹

Routine Referral for Mental Health Evaluation

The indications for referral can differ depending on the mental health issue being addressed, and it is useful to err on the side of safety when considering the speed at which an evaluation should be scheduled.¹

If possible, help the student-athlete make the initial appointment for a mental health care evaluation. This is where having a relationship with in-house mental health staff and/or campus or community mental health care professionals prior to utilizing their services is important. Having a prior relationship may help access their services more expeditiously than having the student-athlete try and make the initial appointment for an evaluation. In some cases, speaking with the counselor while making the appointment for the student-athlete is advantageous if you know the mental health care professional. Often, the mental health care professional may want to know some context for the referral and trust the judgment of the person making the referral. This helps the mental health care professional have a better understanding of the dynamics facing the student-athlete going into the initial appointment. Ask the student-athlete to report back to you that they have made their initial appointment and ask if there is anything you, as the athletic trainer, can do to help expedite their appointments. Emphasize to the student-athlete that whatever is discussed between the student-athlete and the mental

health care professional is confidential. If the student-athlete shares what is discussed at their appointments, unless it is of a nature that indicates harm to themselves or others, reassure the student-athlete that information shared will be kept confidential.¹

Emergent Mental Health Referral

If a student-athlete demonstrates or voices an imminent threat to themselves, others, or property (which in many cases rises to a code of conduct violation), reports feeling out of control, unable to make sound decisions, is incoherent, confused or expresses delusional thoughts, an emergent mental health referral is recommended. The list isn't all inclusive; other troubling symptoms, severity, or number of symptoms affecting the student-athlete should also be given weight when determining a routine or emergent mental health referral is in order. Consider the following steps when developing an emergent mental health referral protocol¹:

- Obtain and have available in your plan the institutional protocol for emergent mental health evaluations for students. Follow the protocol. Contact the university Public Safety Department or the Office of Student Affairs to obtain a copy.
- If the student-athlete appears or acts violently, call for campus and/or local law enforcement and seek immediate assistance and steps to protect bystanders from harm.
- If the student-athlete is not violent, do not leave them alone. Call for assistance with the institutional protocol. Wait for instructions on how and where the student-athlete will be taken for an assessment. Offer to accompany the student-athlete to the place of evaluation- this may help reassure the student-athlete during the assistance process.
- Contact your supervisor in sports medicine, athletics administration, Office of Student Affairs, team physician, and the student-athlete's coach to alert them to an emergent incident.
- Get all phone numbers of those caring for the student-athlete for follow-up.
- Seek advice or assistance with athletic administration, office of student affairs or general counsel on contacting the student-athlete's family and informing them of this incident.

Mental Health Emergency Considerations and Return to Sport Following a Mental Health Crisis

Similar to preparing for physical emergencies in student-athletes, adopting a "Is Today the Day" attitude in anticipating and preparing for mental health emergencies by athletic trainers, team physicians, and mental health professionals is vital. As medical staff members working with student-athletes, interactions with individuals in need of mental health resources and support or during times of crisis and emergency are very likely to occur. All medical staff members are in positions to observe and interact with student-athletes at high frequency. Signals of mental health distress in student-athletes may largely go unnoticed due to the high level of performance they are accustomed to. Because of their frequent contact, athletic trainers are often in positions to observe athletes in distress and have existing relationships allowing the student athlete to feel comfortable disclosing personal information that may exhibit developing mental health concern. Thus, effective crisis supports, and intervention includes having an Emergency Action Plan (EAP), knowing how to react in a mental health crisis, and what resources to contact to provide needed mental health care.

Emergency Action Plan and Return to Participation Following a Mental Health Emergency

A mental health Emergency Action Plan (EAP) is an overview of mental health crisis indicators and recommendations for response that each member of an athlete's coaching staff, medical team, and support staff should be familiar with.^{2,382} It should be distributed widely and reviewed through annual training with staff. Although not all-inclusive, an EAP should provide an overview of the various symptoms or behaviors associated with psychological distress and act as a guide to help navigate response measures when difficult situations arise. It should present policy and procedures to ensure the health and safety of the student-athletes and as well as a systematic approach to identify, assess, and refer student-athletes experiencing psychological distress. Early identification of risk factors and indicators of distress are critical for effective treatment and support for student-athletes. It is important that all medical staff members have familiarity with common mental health risk factors and the referral process for connecting student-athletes to mental health support. While only a licensed mental health provider should provide clinical treatment, all medical team support staff can be sources of support and assist student-athletes in providing referral information. In creating a mental health

emergency action plan the following steps are recommended.

Step 1: Identify Presenting Symptoms. Talking with the student-athlete about how they are doing is an essential first step. Changes in demeanor, energy levels, communication, demeanor, tearfulness, and irritability are common signs of emotional distress. Specific to athletes, changes in sport performance and recent under-performance may also indicate difficulty. Identify areas of current distress, symptom intensity, onset of symptoms, and if there is an immediate threat to safety. Communicate empathy, validation, and support, while also expressing concern for their current situation and distress. At this step the goal is not to necessarily solve the problem but to ensure the athlete feels heard. Identify what the current stressors are, express optimism, and encourage the athlete to reach out for support. Examples of mental health distress commonly experienced in student-athletes may include sadness and emotional overwhelm, interpersonal conflict with coaches, teammates and peers, anxiety and depression, eating concerns, trauma, mood disorders, academic difficulties, sport and personal identity development, performance anxiety, fear of failure, stress management, and injury recovery.

Step 2: Determine Symptom Severity. Based on the student-athlete's reported symptoms, determine symptom severity. Frequently, three tiers of mental health distress are used when determining response measures; problems, crises, and emergencies.^{382,383} While mental health problems may create significant distress in the student-athlete's life and impact day to day functioning, typically the athlete is able to leverage their internal and environmental support systems to find solutions and garner support. While a mental health problem indicates the athlete may benefit from meeting with a licensed mental health provider, the problem is not urgent and does not require immediate care. A mental health crisis is a change in the student-athlete's typical behavior or daily functioning. The crisis may be triggered by a recent event, is characterized by acute onset and typically creates a situation in which the athlete's usual coping mechanisms may be overwhelmed. If the presenting concerns are more urgent than a mental health problem but there is no immediate threat to safety, it is a crisis and not an emergency. Finally, in a mental health emergency, the primary differential is the presence of symptoms that are acute and life-threatening and place the student-athlete in danger because of a suicide attempt or the potential for an imminent

attempt, planning or ideation of a suicide attempt, or if the student-athlete becomes gravely disabled due to mental health symptoms. Additionally, the attempt or threats of interpersonal violence may also constitute a mental health emergency. When a mental health emergency is identified, immediate medical care is needed.

Step 3: Make an Appropriate Referral. When a mental health problem is identified, a referral to a licensed mental health provider is indicated. At this level of severity, the student-athlete can maintain daily functioning and manage current distress and as such, referral for mental health evaluation should occur within a matter of days to a week. Similarly, in a mental health crisis, the athlete is still managing daily functioning, but symptoms are more severe. No imminent risk of self-harm is present, but referral for mental health evaluation should occur within several days. If a mental health emergency is identified, evaluation and treatment must take place immediately. Contacting emergency services or the police department is indicated as the student-athlete's safety is at imminent risk. In this scenario it is important not to leave the athlete alone, and to provide support, staying with the athlete until emergency response arrives.

Step 4: Alert Key Individuals. It is critical to establish a contact list of support staff to be notified in the event of a mental health emergency. Once the athlete is stable and is under the care of emergency responders or licensed mental health providers, updating key support staff is essential. It is important to note, confidentiality is an essential part of mental health treatment, however, during an emergency limits to confidentiality exist, as mandated by state and federal law, to ensure the safety of the student-athlete. Per HIPAA guidelines, during emergency circumstances, and for the ongoing medical care of a student-athlete clinical providers involved in the care of the athlete may discuss applicable clinical information. Establish a communication plan as part of an EAP that identifies what information is shared and with whom during an Emergency. This plan should include team medical providers, administrators, and coaches in addition to notifying the athlete's parents or legal guardian per institutional policy. Depending on severity and the potential for the athlete to be removed from sport participation for a period, key academic staff, strength and conditioning coaches, and nutritional support staff may be included depending on setting and specific diagnosis. Teammates may also need to be provided with some information about if the athlete will be removed from sport, but this should only be general information provided and with the athlete's consent.

Step 5: Provide Treatment Support. Varying levels of mental health treatment will be indicated based on the nature and circumstances of each mental health emergency scenario. Possible levels of treatment include inpatient hospitalization, partial hospitalization, intensive outpatient programs, and general outpatient treatment. Most mental health emergencies will result in a combination of these treatment levels as plan of care is established by the treating medical and mental health professionals. It is essential that an interdisciplinary team is organized to provide ongoing support to the athlete as they progress through treatment and ultimately return to sport participation. This team should be comprised of the treating medical and mental health providers, team medical support staff, and key sport administrators. Coaches, family members, and other support staff may need to be included or provided with updates from this team as the athlete progresses through the various levels of treatment to arrange adequate support at discharge as the institutional policy permits.

Step 6: Plan for Return to Sport. The final step in the mental health EAP is creating a return to participation (RTP) plan for the student-athlete. This plan should be based primarily on the recommendations of the hospital or treatment facility providing the student-athlete with care prior to their return to sport. This plan should include recommendations for ongoing medical and mental health care, physical activity guidelines, nutritional recommendations, and academic support when applicable. The transition back to normal athletic, academic, and social interactions can be challenging for the student-athlete following a mental health emergency. The RTP plan should clearly articulate the required medical treatment recommendations provided by the treating facility at the time of discharge such as on-going mental health care, medication management, nutrition support, and sports medicine care required for the athlete to resume participation in their sport. While it is common for the athlete to be highly motivated to resume normal sport participation, it is essential that medical and mental health recommendations are followed to prevent the recurrence of a future mental health emergency once the athlete has returned to their normal routine and environment. A stepwise approach can be helpful in which increasing sport participation is titrated as the athlete follows the medical and mental health recommendations over time and no indications of increased symptom severity are present.

While concerning, mental health emergencies are a common occurrence among student-athletes given the

high level of performance expected in their sport, the numerous athletic, academic, and social requirements present in their lives, and the prevalence of mental health distress that exists within athlete populations. A thorough EAP provides guidance, structure, and response measures to equip athletics staff to respond to the wide range of mental health distress that may occur among the athletes they are serving. The EAP becomes the foundation of care ensuring the highest-level support no matter the extent or severity of distress the athlete may experience and is essential in any sport environment.

Critical Incident Guidelines Following a Mental Health Crisis

Traumatic events have the potential to evoke both human resilience and distress simultaneously.^{384,385} Student-Athletes may be exposed to a variety of potential traumatic stressors during their athletic pursuits as well as during their daily college lives. Crises on high school and college campuses are sadly commonplace student-athletes are certainly part of those larger communities. Examples of crises and traumatic events common to students would include death or injury to friends /family members, or faculty, exposure to suicide in the high school or college community, significant motor vehicle crashes involving the athletes, friends, or faculty and exposure to violence. More specifically however, athletic injuries are an inevitable aspect of participation in sports affecting athletes at all levels including high school, college, and even professional levels of athletic competition. According to Hirschhorn, et al, about 1% of college athletes and .3% of high school athletes are injured severely enough to require emergency medical transport.³⁸⁶

While the physical consequences of physical injuries are the primary focus of interest for most, the psychological injuries associated with athletics can be profound and long-lasting. Athletic injuries can trigger a wide range of emotional responses and psychological challenges for athletes, their families, friends, and their fans. The immediate aftermath of an injury often includes shock, denial, and anger, as athletes and those involved directly or indirectly struggle to come to terms with the incident and its consequences. While acute distress is a common and expected reaction to adversity and injury, grief, depression and anxiety are more severe syndrome reactions among injured athletes and those who support them. Crises and traumatic incidents may have long

lasting psychological ripple effect consequences subsequently affecting future athletic performance, academic performance, socialization, the ability to handle stress and high-pressure performance situations, and even subsequent personality development.

Recognition of the indicators that individual needs formal assistance is essential – early recognition, better yet. Criticality is based on the level of distress that the student-athlete experiences, and most importantly, the degree to which that distress impairs the athlete's ability to function in any domain (school performance, athletic performance, relationship, etc.) Initial reactions are often time limited, and it is normal to experience temporary disruptions in daily functioning when experiencing traumatic stress. When these reactions persist, a referral to mental health support is indicated. A simple formula for determining criticality of adverse psychological reactions would be SEVERITY x URGENCY. Severity refers to the degree of interference with or impairment in daily and essential activities the student-athlete must perform. Urgency refers to the rate of progression of the distress and impairment, i.e., the rate of deterioration of necessary function.

In the initial days to weeks following a traumatic event, common reactions include: intrusive thoughts and images of the event, periods of emotional numbing alternating with periods of heightened emotions, anxiety symptoms including trouble sleeping, irritability, changes in appetite, fatigue, and an increase in general tension. Individuals differ in their rate of recovery from these initial signs of distress. Reactions that warrant an immediate referral for evaluation include immobilizing depression, social isolation, significant use/ misuse of alcohol or substances to manage distress, suicidal thinking, thoughts of harming others, aggression/ violence, and severe panic to mention only a few.³⁸⁷

Severe physical stress reactions (repeated fainting, all chest pain, difficulty breathing, persistent vomiting, and severe persistent insomnia) are not common and should be referred to a medical professional immediately.

The athletic trainer is in a unique position to be helpful during and after a traumatic incident. The trainers' relationship with the student athlete allows the opportunity to provide support and recognition of the need for referral to formal mental health support. The traumatic stress literature has identified several actions that can be taken to support those who have suffered a traumatic event.³⁸⁸

In the immediate aftermath of a crisis or traumatic event, the provision of individual crisis intervention (psychological first aid) can be helpful in facilitating relief from distress, promoting resilience, and identifying student-athletes in need of further support. Crisis intervention can be provided to individuals or groups who have shared a traumatic event. Athletic trainers can be effectively trained in principles of crisis intervention as a skill set like physical first aid.³⁸⁹

Psychological first aid (PFA), as well as other forms of psychological crisis intervention may be collectively thought of as a compassionate and supportive presence designed to stabilize and mitigate acute as well as subacute distress. PFA is an evidence-based approach designed to not only reduce initial distress but promote adaptive functioning in the aftermath of traumatic events, as well. It has been recommended by the American Psychiatric Association, the American Psychological Association, the World Health Organization, and the American Red Cross. The online learning platform Coursera offers a free asynchronous 4-hour introduction to PFA which is one of the most watched online classes in the history of the internet. The tactical goals of PFA are 1) de-escalation and stabilization of acute distress, 2) mitigation of acute distress, and 3) facilitation of access to alternative levels of support, as indicated. State of the art reviews of PFA are provided by Everly and Lating in *The Johns Hopkins Guide to Psychological First Aid*³⁹¹ and *The Johns Hopkins Guide to Everyday Psychological First Aid*.³⁹² Key benefits of PFA for athletic trainers as applied to student-athletes include:

1. Immediate Support and Stabilization: PFA provides immediate emotional support. This initial intervention is crucial in mitigating acute stress reactions and preventing the development of more severe psychological symptoms.
2. Promotion of Safety and Comfort: PFA emphasizes the importance of creating a safe and comforting environment. Research indicates PFA can alleviate anxiety and promote a sense of calm.³⁹²
3. Facilitation of Adaptive Coping: PFA includes techniques to help individuals develop adaptive coping strategies enhancing their resilience and ability to manage stress in future high-pressure situations.
4. Connection to Support Systems: PFA encourages connecting individuals to their social support networks reminding recipients of the support available to them from colleagues, friends, and family, reinforcing a

sense of community and reducing feelings of isolation.

To be most effective, crisis intervention, including PFA, should be applied within an integrated continuum of care. The most used system is Critical Incident Stress Management (CISM). CISM is a comprehensive, systematic approach to managing the psychological impact of critical incidents developed by Jeffrey Mitchell, PhD, and George S. Everly, Jr., PhD, MA, ABPP.³⁹³ It consists of a continuum of care consisting of various interventions aimed at supporting individuals and groups. It represents an amalgamation of potential interventions that can be selectively utilized to create a best fit intervention wherein the interventions employed are matched to the unique needs of the situation and people therein. It is the most widely used post-incident integrated psychological support system in the world with active training programs in over 20 countries. Key benefits of CISM for athletic trainers include:

1. **Early Identification of Psychological Symptoms:** CISM includes mechanisms for early identification of individuals who may be at risk of developing more severe psychological issues. Early intervention ensures that those in need receive appropriate mental health support promptly.

2. **Structured Group Interventions:** CISM involves structured group crisis interventions such as defusing, crisis management briefings (CMB), and Critical Incident Stress Debriefings (CISD), where participants can receive information as well as discuss their experiences, emotions, and reactions in a safe and controlled environment. These processes seek to assist in normalizing their responses and reducing feelings of guilt or inadequacy.

3. **Group/ Team Cohesion:** CISM fosters group and team cohesion, allowing participants to share their experiences with those who understand the unique challenges they face.

4. **Stress Management and Resilience Training:** CISM provides stress management and resilience training, equipping participants with skills to manage their stress levels and enhance their mental resilience. This proactive approach helps in preparing for future critical incidents. Resilience may be thought of in three ways: 1) resistance (psychological immunity), 2) resilience (rebound), and 3) psychological salience (growth).³⁹⁴

Implementing CISM into an athletic environment requires a strategic and collaborative approach. Key strategies include:

1. **Training and Education:** Implementing PFA and especially the integrated continuum of care is a unique behavioral skill not commonly taught in graduate programs of counseling, social work, psychology, and psychiatry. Specialized training is necessary. The University of Maryland, Baltimore County offers an exam-based certification in CISM predicated upon a minimum of about 40 hours of specialized training. Training should include recognizing signs of stress, applying PFA principles individually and in groups, and knowing how to apply the continuum of care.

2. **Developing a Supportive Culture:** Creating a culture that prioritizes mental health and well-being is essential. Encouraging open conversations about stress and trauma, and normalizing the use of psychological support services, fosters an environment where trainers feel comfortable seeking help.

3. **Collaboration with Mental Health Professionals:** Collaborating with mental health professionals to provide specialized support and interventions is crucial in all aspects of CISM.

4. **Regular Monitoring and Evaluation:** Regularly monitoring the mental health of student-athletes, athletic trainers, and staff to ensure that the support provided meets their needs. Feedback from trainers should be used to refine and improve support strategies continuously.

The psychological impact of witnessing devastating sports injuries on student-athletes, athletic trainers, coaches, staff, family, friends, and supporters can be significant, if not life-changing and require careful attention. Implementing Psychological First Aid and other Critical Incident Stress Management interventions provides essential support, helping athletic trainers manage immediate stress reactions, develop adaptive coping strategies, and build resilience for future incidents. By integrating these interventions into the athletic environment, organizations can help ensure the well-being of all involved.

One resource for use in developing an athletic department's critical incident guideline is Guideline 1F of the 2015-2016 NCAA Sports Medicine Handbook, "Catastrophic Incident in Athletics." This Guideline outlines in detail how a university athletic department may develop their own catastrophic incident guideline to address the considerations discussed above.³⁹⁵

Educating Student-Athletes, Coaches, and Athletic Trainers on Mental Health Considerations

Providing mental health training for an entire collegiate athletic department—including coaches, athletic trainers, academic advisors, and administrators—offers significant benefits. The responsibility to care for student-athletes should not rest solely on athletic trainers. A comprehensive, department-wide approach ensures that every staff member interacting with student-athletes is equipped to recognize, support, and respond to mental health challenges. The NCAA's Mental Health Best Practices recommend that all athletics programs be conducted in a manner designed to protect, support, and enhance the mental health of student-athletes, emphasizing the importance of a holistic approach. The NCAA's Mental Health Best Practices also emphasize that creating a healthy environment that supports mental health and promotes well-being is foundational.³⁶³

This includes providing proper training and education to all personnel, which reduces stigma and empowers athletes to access mental health resources. These comprehensive training initiatives not only enhance mental health literacy among staff but also promote a supportive culture and improve collaboration in addressing the mental health needs of student-athletes.

When all department staff undergo the same mental health training, it creates a shared language around mental health concerns, making communication more effective. This shared understanding fosters an environment where mental health is openly discussed, reducing stigma and encouraging student-athletes to seek help when needed. A department-wide shift in culture leads to greater awareness of student-athletes' mental health needs and a heightened willingness to engage in meaningful conversations that support overall well-being. Additionally, as department staff become more educated on mental health, they may also initiate improvements in overall organizational health and team dynamics. The NCAA's Mental Health Best Practices outline strategies for understanding and supporting student-athlete mental health, which can contribute to a positive organizational culture.³⁶³

Choosing the Right Mental Health Training Program

Various mental health education programs are available for athletic departments. Some focus on crisis situations, while others emphasize general mental well-being.

- Question, Persuade, Refer (QPR)³¹⁵ and Applied Suicide Intervention Skills Training (ASIST)³⁹⁶ primarily address suicide prevention by teaching participants how to recognize and respond to individuals at risk (QPR)³¹⁵
- Mental Health First Aid (MHFA) is an internationally recognized program that provides broader training on a wide range of mental health concerns, including anxiety, depression, and substance use disorders³⁹⁷
- VitalCog is an interactive course that helps athletic staff and student-athletes understand their role in suicide prevention by discussing protective factors, risk factors, and warning signs, along with practicing conversations around suicide.³⁹⁸

There may be many factors to consider when choosing a department-wide training and often the time commitment and financial obligation are two factors that influence a department's choice of program. It is important, however, to consider what training would be most beneficial to the staff and student-athletes of the department. Since collegiate athletes face unique mental health challenges, such as intense performance pressure, academic stress, and identity struggles, selecting a program tailored to their needs is ideal.³⁹⁶

Regardless of which program is chosen, implementing mental health training department-wide increases mental health literacy, fosters a culture of care, and strengthens collaboration in supporting student-athletes.

1. Early Intervention and Crisis Prevention

Collegiate athletes are at increased risk for mental health challenges, including anxiety, depression, eating disorders, and substance misuse, due to the demands of balancing academics, athletics, and personal life.³⁹⁹

Mental health training helps staff recognize early warning signs and take appropriate action before issues escalate. A well-trained department can identify subtle behavioral changes—such as shifts in mood, withdrawal from teammates, or decreased motivation—leading to early intervention that improves outcomes. Studies show that early identification and support significantly enhance recovery and resilience.³⁹⁷

Since student-athletes interact with multiple department staff daily, having an entire department trained increases the likelihood that someone will notice concerning behaviors. This also reduces the burden on athletic trainers, as other staff members can assist in re-

ferring student-athletes to mental health professionals when necessary.

2. Reducing Stigma and Encouraging Help-Seeking Behavior

Many collegiate athletes avoid seeking mental health support due to stigma, fear of appearing weak, or concerns about playing time. A study by Sudano et al. found that athletes often believe they should cope with mental health issues on their own and perceive seeking counseling as a sign of weakness.⁴⁰⁰

When athletic department staff are trained in mental health awareness, they help normalize discussions around mental well-being. Training programs have been shown to increase mental health literacy and encourage help-seeking behavior in both employees and the populations they serve.⁴⁰¹

When staff feel comfortable discussing mental health, they create an environment where athletes also feel safe seeking support. Additionally, when department staff embrace mental health awareness, they are more likely to take care of their own mental health and model positive coping strategies for student-athletes. This shift reduces stigma at all levels and fosters an athletic culture that prioritizes both physical and mental well-being.⁴⁰²

3. Providing Immediate Support During a Crisis

Some student-athletes experience serious mental health crises, such as panic attacks, suicidal ideation, or substance use disorders. Just as physical first aid is essential for medical emergencies, mental health training prepares staff to provide immediate, appropriate support in crisis situations. When staff members feel competent and confident in handling mental health crises, they can respond quickly and effectively, improving safety and outcomes for the individual in distress.³⁹⁷ Training also ensures that protocols are followed correctly, minimizing risks for the athlete, the staff, and the department.⁴⁰³

4. Supporting Athletes Through Injuries and Career Transitions

Injuries can be emotionally devastating for college athletes, often leading to depression, anxiety, or identity crises. This can greatly impede an athlete's recovery from injury as well as negatively impacting their overall well-being.²¹¹ Additionally, many athletes struggle with the transition out of competitive sports after graduation.⁴⁰⁴

Mental health training equips staff with the tools to

recognize when injuries or career transitions are negatively impacting an athlete's mental well-being. Staff members can then offer emotional support, encourage coping strategies, and guide athletes toward additional resources before the situation worsens. The Association for Applied Sport Psychology (AASP) suggests that athletic trainers and coaches play a key role in providing social support, helping athletes maintain confidence, and encouraging the use of mental strategies during rehabilitation. This proactive approach can prevent the escalation of mental health issues.⁴⁰⁵

5. Enhancing Academic and Athletic Performance

Research indicates that student-athletes who receive adequate mental health support are better equipped to focus, manage stress, and maintain motivation, leading to enhanced academic and athletic performance.²⁹ A mentally healthy team culture fosters greater resilience, stronger communication, and better team cohesion, all of which contribute to athletic success. By prioritizing mental health education for staff, departments help athletes perform at their highest potential. For example, a study by Karayel et al. emphasizes the role of healthy athletes, coaches, and team relationships in team resilience. These studies underscore the importance of a mentally healthy team culture in promoting resilience, effective communication, and cohesion, all of which contribute to athletic success.⁴⁰⁶

6. Fulfilling NCAA and Institutional Duty of Care

Implementing department-wide mental health training helps institutions meet NCAA guidelines and best practices, ensuring compliance and reducing legal risks. More importantly, it demonstrates a genuine commitment to athlete well-being, strengthening the department's overall support system. The NCAA's Mental Health Best Practices document outlines procedures for identifying student-athletes with mental health symptoms and disorders, including the use of validated screening tools in consultation with licensed mental health providers.³⁶³ By adhering to these guidelines, institutions fulfill their duty of care to student-athletes, promoting both their mental health and overall performance.

A department-wide commitment to mental health training creates a more supportive, informed, and responsive athletic environment. When all staff members—not just athletic trainers—understand mental health, student-athletes benefit from consistent, compassionate support from every angle. By reducing stigma, increas-

ing early intervention, improving crisis response, and supporting athletes through injuries and transitions, mental health training enhances the well-being, performance, and long-term success of collegiate athletes. Additionally, meeting NCAA mental health best practices ensures that institutions uphold their duty of care to student-athletes. Investing in mental health training isn't just a proactive strategy, it's an essential step toward fostering a culture of care, resilience, and excellence in collegiate athletics.

Intercollegiate Organizations Recommendations on Student-Athlete Mental Health and Wellness

It is important for the athletic trainer, team physician, mental health professional, athletics department, and general counsel of universities to be aware of intercollegiate organizations recommendations for student-athlete mental health and wellness. These recommendations not only provide useful information on student-athlete mental health but also serve as professional standards that a university is accountable to provide or arrange for. Below are some examples of intercollegiate organization recommendations for student-athlete mental health and wellness.

NCAA Recommendations for Intercollegiate Student-Athletes' Mental Health and Wellness

It is useful for athletic trainers, team physicians, and mental health professionals working with student-athletes to review the salient points of the NCAA mandated recommendations to provide mental health care to student-athletes starting in November 2025. Below is a review of these recommendations for institutions to be aware of.³⁶³

In 2013 a multidisciplinary Mental Health Task Force was created upon the recommendation of the NCAA Committee for Competitive Safeguards and Medical Aspects of Sports (CSMAS). With the consensus of the Mental Health Task Force, the NCAA published the first iteration of the Mental Health Best Practices document in 2016. That document has consequently been updated several times (2017, 2020, 2024). In 2019, association wide legislation was adopted requiring member schools to make mental health services and resources available consistent with the Mental Health Best Practices documents.

In 2020, the NCAA hosted the Diverse Student-Athlete Mental Health and Well-being Summit with the goal of developing foundational statements addressing diverse student-athlete mental health and well-being.

After determining there was a need to update the Mental Health Best Practices with additional consideration for the mental health and well-being of student-athletes of color, LGBTQ+ student-athletes, student-athletes with disabilities and international student-athletes the NCAA created the Mental Health Advisory Group (MHAG) to address this task. In 2023, the MHAG provided CSMAS consensus-based recommendations for updating the Mental Health Best Practices. These recommendations, along with membership feedback, have been incorporated into the NCAA Inter-Association Consensus Document: Best Practices for Understanding and Supporting Student-Athlete Mental Wellness, Second Edition.³⁶³

The NCAA Mental Health Best Practices should be utilized by membership school athletic trainers and may be utilized by non-membership school athletic trainers as recommendations for team, athletics, campus and community-based approaches to supporting, promoting and managing student-athlete mental health concerns. Additionally, these recommendations provide guidance on how the athletic trainer may prepare for and respond to mental health emergencies. Foundational Principles of the *Best Practices for Understanding and Supporting Student-Athlete Mental Wellness*, Second Edition.³⁶³ :

Definition of mental health for the student-athlete: A state of well-being that enables student-athletes to cope *with complex stressors associated with their various roles and to realize their abilities in athletics, academics, other personally important domains and to contribute to their community.*

Mental health is an important dimension of overall student-athlete health and optimal functioning.

- Mental health exists on a continuum with mental wellness and thriving on one end and mental health symptoms, conditions and disorders that disrupt a student athletes' functioning at the other.

Emerging adulthood is a particularly important time for supporting mental health.

- Emerging adulthood represents a developmental period consisting of physical growth, ongoing brain development, changes in social environment and establishing lifelong health related behaviors. It is a common time for mental health challenges to emerge.

Mental health risk and protective factors occur across settings and over time.

- While data from the 2022 ACHA-NCHA survey suggests collegiate sport participation may be a possible protective factor for mental health, student-athletes continue to report mental health concerns.⁴⁰⁷
 - Every student-athlete enters the collegiate sport environment having come from different backgrounds and experiences that can affect their mental health through different resiliencies and vulnerabilities developed over their lifetime.
- Schools play an important role in mitigating the effects of such stressors by creating an inclusive and equitable environment. Diversity in mental health providers (identity, modalities of treatment and clinical competencies) is a key facet to ensuring that the needs of all student athletes can be met.

Coaches play an important role in student athletes' mental health and well-being.

- Coaches and staff play a large role in creating positive, healthy team environments that support mental health and promote help-seeking behavior.
- The mental health of coaches and staff can be a contributing factor to a healthy team environment. Supporting the mental health of the coaches and staff is an important consideration when creating positive team cultures that help support the mental health of student athletes.

Mental and physical health are inextricably linked.

- Anxiety, depression, substance misuse and disordered eating can predispose a student-athlete to musculoskeletal injuries and/or injuries to other body systems.
- Injured student-athletes are at increased risk of experiencing anxiety, depression, substance misuse and disordered eating.
- Insomnia and sleep disorders can be both an indicator and risk factor for mental health disorders.

Discrimination, maltreatment and psychosocial trauma negatively impact mental health.

- Discrimination is unjust differences in treatment related to race, ethnicity, nationality, gender identity and presentation, sexual orientation, disability or other personal characteristics and identities.
- There are many types of traumatic or chronic stressors that may play a role in the health of a student-athlete. These include but are not limited to discrimination, nonaccidental violence such as harassment, bullying, abuse, neglect, interpersonal violence, sexual violence, hazing or other forms of maltreatment, as well as experiences of childhood adversity.

Social media is an evolving and concerning risk factor for poor mental health.

- Initial research has suggested that while social media use may have some potential benefits, it also poses risk factors for youth and may perpetuate systemic racism and discrimination.
- It is possible that this risk is magnified for the student-athlete who may feel increased external pressure due to other rapidly increasing areas of collegiate sports including the opportunity to be compensated for their name, image and likeness as well as sports wagering.

Collaboration and continuous improvement are essential.

- Student-athlete health and well-being is best served through a collaborative process that engages the full complement of campus and community services available, including but not limited to: athletics, campus health, counseling services, disability services and community agencies.
- Continuous improvement is needed to meet the ever-changing mental health needs of the student-athlete. Continuous improvement can be viewed as an ongoing cycle of implementation, information gathering and subsequent changes based on evaluation of that information.
- There should be intentional consideration to ensure that student-athletes and the inclusion of under-represented voices are included in all continuous improvement efforts.

NCAA Mental Health Best Practices:

Best Practice #1 - Create Healthy Environments That Support Mental Health and Promote Well-Being. Recommendation: Schools should have a written plan that addresses mental health promotion, risk and protection factors.

Core Components:

- Plan is developed in collaboration with a mental health care provider.
- Plan is multilevel and addresses concerns at the individual, team, athletics department, campus and societal levels.
- Plan addresses diversity, equity and inclusion

Additional Elements to Consider:

- Train and Support Coaches
- Attend to the unique needs of student-athletes who have experienced or are experiencing psychosocial trauma.
- Focus on sleep.
- Provide guidance and support related to social media and Name, Image and Likeness.

Best Practice #2 - Procedures for Identification of Student-Athletes with Mental Health Symptoms and Disorders, Including Mental Health Screening Tools. Recommendation: Utilize a validated mental health screening tool at least once annually to identify student-athletes in psychological distress and who may benefit from further support.

Core Components:

- Screening tools used in consultation with primary athletics health care providers and/ or licensed mental health providers.
- Use validated screening tools.
- Screen for psychological distress.
- Screen all student-athletes at least once annually.

Additional Elements to Consider:

- Screen for specific mental health disorders and risk factors.
- Consider populations in which screening tools have been validated.
- Work with student-athletes to foster trust.
- Address mental health literacy.

Best Practice #3 - Mental Health Action Plans that Outline Referral Pathways of Student-Athletes to Qualified Providers. Recommendation: All schools should have a written and rehearsed mental health action plan that

addresses the full spectrum of care from identification of student-athletes with mental health symptoms to ongoing treatment, follow-up and reentry.

Core Components:

- Action plans address the full spectrum of care.
- Action plans address emergency mental health care needs.
- Action plans address routine mental health care needs.
- Action plans are written and rehearsed.

Additional Elements to Consider:

- In developing the action plan, recognize that student-athletes may have experienced or be experiencing psychosocial trauma.
- Conduct regular outreach to all stakeholders about the action plan.
- Make sure the action plan is easily usable.
- Create a post-crisis action plan.
- Consider non-clinical aspects of care.
- Consult with campus disability services.

Best Practice #4 - Licensure of Providers Who Oversee and Manage Student-Athlete Mental Health Care. Recommendation: Treatment of student-athletes with mental health symptoms or disorders should be performed by a licensed mental health care provider.

Core Components:

- Licensure of mental health care providers.

Additional Elements to Consider:

- Recognize accessibility and the value of choice of providers.
- Work toward a diverse and culturally sensitive staff that can address diversity, equity and inclusion.

Special Considerations for the athletic trainer based on the NCAA Best Practices:

Mental health exists on a continuum of wellness and thriving on one end and mental health symptoms or disorders on the other.

Emerging adulthood represents a time of great change and thus mental health challenges can develop quickly.

- Every student-athlete comes from a different background and is experiencing their environment through the lenses of the resiliencies and vulnerabilities they have developed over time. These past experiences will create an individual environment for each student-athlete and their specific sport setting.
- The mental health of coaches and staff matters and can help contribute to a positive and healthy team environment.
- Anxiety, depression, substance misuse and disordered eating can cause musculoskeletal injuries and be caused by musculoskeletal injuries.
- Student-athletes who experience discrimination are at an increased risk of poor mental health. Prioritizing an environment of equity and inclusion as well as a diverse staff population can help ensure that the mental health needs of all student-athletes can be met.
- Social media, NIL and sports wagering may have a significant effect on the mental health of student-athletes as they feel increased external pressures surrounding performance, body image and presentation.
- Utilizing the full complement of available resources across campus and throughout the community can help provide the best mental health care for student athletes.
- A conscious and intentional effort should be made to ensure continuous improvement of resources through implementation and feedback. Making special consideration to include under-represented voices will help to ensure a diverse, inclusive and equitable environment that can care for the mental health needs of all student-athletes.
- Mental Health action plans need to be written AND rehearsed.
- Validated mental health screenings should be utilized at least annually.
- Mental health care providers should be licensed clinicians.

Please see the full document: *Mental Health Best Practices: Understanding and Supporting Student-Athlete Mental Health, second edition*, for an in-depth discussion of all the above topics as well as additional resources regarding the implementation of these best
National Athletic Trainers' Association

practices.³⁶³

NCAA Division III Mental Health First Aid Program

Supporting student-athletes is a top issue facing coaches and athletic trainers working at the NCAA Division III level.⁴⁰⁷ To address this concern, the NCAA has engaged the National Council for Mental Wellbeing to provide Mental Health First Aid (MHFA) training to NCAA Division III athletic trainers and head coaches. MHFA is a prevention and early intervention program that instructs individuals how to identify, understand, and respond to signs and symptoms of mental health or substance abuse challenges and address it before they become a crisis for the student-athlete.⁴⁰⁸ MHFA provides an evidence-based training for adults ages 18 years or older to learn how to assist and support adults with a mental health or substance abuse issue in the areas of: recognition of mental health challenges, provide immediate support, breaking mental health stigmas, connecting the individual to resources, and building long-term resilience.⁴⁰⁸ Up to 30 individuals at each Division III active member institution can receive MHFA training through the NCAA Mental Health First Aid Program, with emphasis on having athletic trainers and head coaches receiving this course. It is recommended that athletic trainers that provide care to Division III student-athletes check with their respective administrators to sign up for MHFA training.

National Intercollegiate Athletics Association (NAIA) Mental Health Considerations

Not all intercollegiate student-athletes participate at the NCAA level. The National Intercollegiate Athletics Association (NAIA) has approximately 83,000 student-athlete participants annually.⁴⁰⁹ The NAIA has information on student-athlete mental health on their webpage, under the tab, Mental Health.⁴¹⁰ There are two resources on this webpage, *Student-Athlete Mental Health Toolkit*⁴¹¹, and *Executive Summary: Mental Health, Social Connectiveness, and Risk Factors in NAIA Student-Athletes*.⁴¹² The Student-Athlete Mental Health Toolkit provides the NAIA student-athlete, coaches, administrators, and athletic trainers providing care at the NAIA level, information on depression, anxiety disorders, eating disorders, risk of suicide, and resources for assistance.⁴¹¹ The *Executive Summary: Mental Health, Social Connectiveness, and Risk Factors in NAIA Student-Athletes* provides a summary of a 2023 survey of NAIA student-athletes on depression, mental toughness, social support, and suicide severity. The authors provided data and reported the rates

of mental health and wellness in NAIA student-athletes are primarily in line with that of other sports associations, and made several recommendations for future consideration: 1) create consistent messaging strategy related to mental health and wellness, 2) cultivate relationships with national mental health partners for education, training, and resource development, and 3) continual development of mental health and wellness resources and training opportunities tailored to specific populations such as student-athletes, coaches, administrators, and parents.⁴¹²

Risk Management and Legal Considerations in Developing the Student-Athlete Psychological Concerns Plan

Information in this section is not legal advice but is offered for consideration when building an institution's student-athlete mental health plan. It is recommended that each institution consult their respective risk management and legal counsel departments when working collaboratively with stakeholders in developing, reviewing, and approving their individual student-athlete psychological concerns plan.

Institutional legal counsel plays a critical role in confronting the complex issues of mental health and the student-athlete. Importantly, counsel can lead or assist in developing plans and policies that can provide guidelines to the individual(s) confronted with individual risk cases. It is important that those with legal and risk management responsibilities, work together with the disciplines that specifically address athletics and health care—athletic trainers, team physicians, and mental health professionals working within the athletics department, campus counseling center, student health and student affairs, and beyond.

All collegiate sports medicine professionals feel the pressure of the legal obligations and risks associated with their profession. Today, that pressure is especially acute, as the possible negative outcomes related to student-athlete mental health become better understood.

The quantity of the applicable laws and standards can be intimidating. These include federal and statute statutes, related regulations, common law tort principles, the NCAA Constitution, conference bylaws, and university policies.

The ways in which these laws and rules can be raised and enforced are numerous as well. They can include student-athlete and parent complaints, internal investigations, Department of Education Office of Civil Rights inquiries, civil suits, licensing board disciplinary ac-

tion, and even criminal prosecution.

The good news is that, with the right approach, sports medicine professionals can carry out their duties with accountability, but without undue fear. The purpose of the preceding sections is to provide athletic trainers and physicians with the substantive awareness and mindset to approach student-athlete mental health issues confidently and responsibly. Following these standards, one's professional training, and a diligent pro-athlete approach may preempt most legal concerns.

Still, knowledge of the relevant legal standards and risk management best practices is important. These issues can be understood in five categories: policy planning, issue identification, remedial or preventative action, confidentiality, and legal protection.

Policies. First, it is important from a legal perspective to develop sound and clear policies for dealing with student-athlete mental health concerns. The preceding sections provide the substantive framework for good policies for dealing with mental health issues. Short-sighted or outdated policies can cause negative outcomes for student-athletes—and can be used as a basis for civil suits, civil rights investigations, and the like. Examples of this include a lawsuit attributed to a student's suicide to school policies that allegedly disincentivize students from taking necessary medical leave, or litigation against a school alleging insufficient policies and a failure to follow existing policies in addressing a student-athlete's reports of physical and mental health concerns.

Universities should not only implement best policies, but they should also make sure that the campus community can access and understand them. Drafting the policies in simple, clear language, omitting multipart tests and legalistic language—is helpful. So too is making the policies easy to access, such as by posting them online in logical places (such as a university online policy library) and physically posting them in the school's athletic training facilities.

Identifying issues and providing access. Another important factor from the legal and risk-management perspective is that of issue identification and access to care. It is important that a school's sports medicine apparatus maximizes the ability to identify mental health issues and provides access and knowledge to the student-athletes in finding and obtaining care.

As the sections above explain, identifying factors including but not limited to depression and suicide risk

can be much more challenging than identifying a fracture or an infection—and a missed mental health identification can sometimes have more profound impacts than a missed physical one. It is important to follow the best practices above in approaching one's daily work in dealing with student-athletes, and the many challenges and experiences they face. As detailed above, some of these practices are nuanced—such as being on alert for, and noticing, certain verbal and nonverbal cues. Other practices are clearer and more overt—such as mental health screening. While mental health screening is becoming a more standard practice, many campuses still do not do it comprehensively or completely. Several authorities, including the NCAA itself has established an industry standard of screening all student athletes for mental health concerns at least once every year.³⁶³

However, surveys done in the last decade find that only about four in 10 institutions had a written plan for mental health screenings at the time of the study; Sudano and Miles⁴¹³ reported only 42.5% had a written plan, and Kroshus⁴¹³ reported only 39% had a written plan for mental health screening. While the numbers have likely improved since those studies, they have not yet approached 100 percent. A school's failure to implement such a procedure, or a failure to follow it consistently, could play a role in a negative outcome, and could be fuel for a civil lawsuit. Establishing a practice of regular mental health screenings and documenting them—i.e. documenting both the enactment of a screening policy and the issuance and completion of the screenings for all student athletes—provides a meaningful reduction in legal risk.

Another measure of problem identification is training. Proper training, of course, helps relevant institutional representatives identify and address student athlete mental health issues. Many professionals in sports medicine, especially physicians and athletic trainers, already have training in mental health identification through their degree-earning course curriculum. Other related professionals, though, like coaches and physical therapists, have less direct training and experience in this subject. Mental health identification and support training for these non-mental-health professionals can make a major difference, especially since these professionals often spend the most direct-observation time with student athletes. For example, an assistant coach might spend an hour or more a day in a meeting room with student athletes, and a physical therapist may have an hour-long, one-on-one rehabilitation therapy session. Both examples present with meaningful opportu-

nities to perceive warning signs. Institutions that conduct training of athletics and medical staff—and that can document and can demonstrate those training stand in a safer position in terms of legal risk than those institutions that do not offer this training or that do not document its implementation.

It is also critical that student athletes receive sufficient education and encouragement to seek help for mental health issues and to know where and how to obtain it. A [2022 NCAA](#) study found that only about two out of three NCAA student-athletes confidently knew where to go on campus to seek care or counseling for mental health concerns. Specifically, 69 percent of female athletes and 63 percent of male athletes agreed or strongly agreed that they knew where on campus these issues could be addressed.⁴¹⁴

Remedial or preventative action. Identifying an issue is key, but identification does little good from a student-outcome perspective—or from a legal or risk-management one—if it does not result in prompt and sufficient action. This does not require sports medicine professionals to deliver mental health services themselves, but it could require them to connect the student-athlete to the right help. Schools should have well-established and trusted referral pathways in place for all foreseeable mental health issues, to enable sports medicine professionals to connect student-athletes with the right specialist.³⁶³

Sufficient action could require more than just a referral, though, and some follow-through may be appropriate. One problem area is where a student-athlete is reluctant to accept, or refuses to accept, mental health resources. For minors—such as high school athletes and even young college athletes—applicable state law may compel sports medicine professionals (and anyone with knowledge of the situation) to report circumstances to relevant authorities. For adult student athletes, even very young ones, the focus shifts somewhat, from the sports medicine professional's duty to act, to prohibitions on action. As discussed immediately below, adult student-athletes enjoy strong protection on confidentiality, which can only be overridden in certain exigent circumstances. Sports medicine professionals addressing student-athletes in this position sometimes can only persist in encouraging the student-athlete to seek the right treatment.

Confidentiality. When it comes to student-athlete mental health, institutional professionals often think about their duty to take action to address a mental health

problem. But in some cases, the law requires that institutions do not act. Specifically, the law may require an institution not to act, and to preserve student-athlete confidentiality, depending on the circumstances.

The key law on this subject is the Family Educational Rights and Privacy Act, 20 U.S.C. § 1232g, and its Department of Education promulgating regulations, 34 C.F.R. Part 99 (together, known as “FERPA”).⁴¹⁵ Generally speaking, FERPA requires educational institutions and their personnel to keep student confidences, and not to disclose any information about students without their permission (or, in the case of minors, without the permission of a parent or guardian). In FERPA, there is no threshold of sensitivity for protected information—schools cannot disclose *any* information, whether commonly thought of “confidential.” The one main carve-out is “directory information,” such as the student’s name, dates of attendance, and contact information, which can be disclosed.⁴¹⁵

FERPA, though, has other exceptions that allow disclosure of detailed student information and records. One common exception involves student consent. Students can consent—in real time, or sometimes in advance—to the disclosure of certain information to certain recipients. The general purpose of obtaining advance consent is to develop an advance plan that institutions can turn to when a student is incapacitated or generally unavailable. In borderline cases where a student is showing signs of mental health trouble, but declines to seek help, a school’s reliance advance consent likely is not permissible, because the student is generally reachable and competent to withhold the consent. In more extreme cases—commonly, in instances of a medical or mental health emergency, such as an emergency psychiatric detention—advance consents can operate to allow certain information to be disclosed to proper parties. One way that schools accomplish this is by requiring students to fill out an electronic consent form, if they enroll in on-campus housing. Although a school cannot compel or coerce a student’s consent, it likely can require them to go through the process of choosing whether to consent. For schools that follow this approach, it is key that detailed information be captured. Under the relevant FERPA regulation, 34 C.F.R. § 99.30, a valid advance consent must specify three things: the records that may be disclosed, the purpose of the disclosure, and the identity of the party or class of parties to receive the disclosure. (For example, a student can specify that news of his/her psychiatric detention can be disclosed to her parents, for the purpose of keeping them apprised

of his/her whereabouts and wellbeing.) Institutions that deploy this mechanism, and that follow the prescriptions of the relevant consents, can increase the chances for better outcomes and achieve legal compliance.⁴¹⁴

Even short of medical admissions and detentions, institutions can face hard choices. Take, as examples, a student athlete who confides that he is experiencing suicidal ideation, or a student who survives a sexual assault. Even without an advanced consent, FERPA allows institutions to disclose student information if circumstances meet a certain threshold of exigency. Schools may make unconsented disclosures, including disclosures against a student’s stated wishes, if the disclosure is made “in connection with an emergency if knowledge of the information is necessary to protect the health or safety of the student or other individuals.”⁴⁰⁰ Institutions must consider “the totality of the circumstances” when determining whether this threshold has been met.⁴¹² The keys in this determination are (1) that the circumstances must reveal “an articulable and significant threat to the health or safety of a student or other individuals,” and (2) that disclosure should be limited to only those “person[s] whose knowledge of the information is necessary to protect the health or safety” of those involved.⁴¹⁶ This regulation reflects an acknowledgment that these disclosure decisions can be highly nuanced and close calls. It clarifies that institutions need only have a “rational basis” for a decision to disclose, otherwise the Department “will not substitute its judgment” for the institution.⁴¹⁵

In many cases, serious mental health issues may not meet this high threshold. In such cases, sports medicine professionals generally can only encourage student-athletes to seek the help they need, assist and enable the student athlete in doing so, and provide and direct the relevant resources.

Finally, in discussing these privacy protections, it is important to note several qualifications:

First, FERPA protections pertain chiefly to *disclosures outside the institution*—FERPA does not prohibit institutional representatives from disclosing information to other relevant institution personnel, and it *does not relieve reporting obligations to relevant personnel* within the institution (“Disclosing appropriate information... to teachers and school officials within the agency or institution... [or those] in other schools who have been determined to have legitimate educational interests in the behavior of the student”).⁴¹⁵

Second, the protections and requirements on reporting—like most parts of FERPA—get more complicated in the case of minor students.

Third, FERPA protections overlap with, but are not necessarily coextensive with, the protections and best practices applicable to *healthcare providers generally*, within and beyond the sphere of educational institutions. Applicable legal protection here includes those under the Health Insurance Portability and Accountability Act (HIPAA) or related state privacy laws. For example, if a student athlete discloses to a team doctor that he is dealing with a mental health issue, the law—and basic ethics and best practices—will likely prevent the doctor from disclosing this information to the student athlete’s coaches, without permission. When an institution’s sports medicine professionals confront such situations, it is often prudent for these professionals to encourage the student athlete to inform their coach and their parents; but the practitioner likely cannot do so themselves without permission, absent serious exigencies. (Again, different rules on parents apply to minor students.) Similarly, these professionals should refer student athletes to the resources they need (i.e. the relevant mental health counselor, therapist, or physician), but they likely cannot force them to use those resources, nor can they condition certain privileges on their use of those resources.⁴¹⁵

Lastly, this section provides only the basics of the law and best practices of privacy and confidentiality. Institutions are likely to face privacy decisions with some regularity. From the legal compliance and risk management perspectives, it is prudent for institutions to enact policies and operating procedures that comply with FERPA’s detailed regulations, to allow institution personnel to make quick and correct decisions.

Other considerations for sports medicine and mental health professionals in legal liability and risk management are:

Seeking legal help. Again, the purpose of this Consensus Statement is to orient sports medicine professionals on some of the legal compliance and risk management basics relevant to their field. But doctors and athletic trainers cannot know every detail of the law, nor should they feel that they must navigate the legal landscape alone. Indeed, practitioners may need to ask for legal help multiple times in their career, to do their jobs safely and responsibly. Here, we provide some basic keys to finding and obtaining legal advice responsibly.

First, know ahead of time where to go with a legal question. Some larger institutions have general counsel or other in-house employee attorney—or even an office with multiple such attorneys—whose job it is to represent the school and to address the legal issues that face it. These institutions typically keep a designated page on their website that provides phone and email contact information. For institutions that do not employ an attorney full-time, knowing where to go may be less clear. These institutions may use attorneys outside the organization, but they typically designate one office or institution to manage that relationship—such as a president, dean, head of finance, or risk management director. Sports medicine professionals should receive training on how to address legal issues and where to direct them—and, even if no training is done, they should take a moment to determine the answer. This advance planning will help avoid time lags, confusion, or risk privilege protections.

Second, professionals who are unsure of whether they have an issue that needs legal attention should err on the side of seeking help, and sooner than later. Attorneys, including those in higher education and K-12 law practice—often learn of events well after their clients have identified a legal problem. And sometimes they find that their clients have made the situation worse by letting time go by without action, or by taking well-intentioned but counterproductive measures. Conversely, when institutional staff contact counsel promptly, legal help can flow to the problem immediately and more effectively, maximizing the chances of the best outcome.

Third, while it is important to bring legally sensitive issues to counsel, be aware that attorneys for an institution are not personal counsel for its staff. That is, the school’s lawyer represents the institution, not its employees personally. The institution’s lawyer therefore does not owe a duty to a reporting staff member to keep conversations confidential, and indeed their duties may compel them to report information, at least to others within the institution. Similarly, although these communications typically enjoy attorney-client privilege protection, those protections belong to the institution alone, which can waive those protections and disclose information at any time. Most of the time, these distinctions are not a problem, because the reporting professional is trying to make the institution aware of a legal issue principally affecting the institution. But when staff have concerns about their own legal interests, they should seek their own personal counsel.

Fourth, be aware of the limits of attorney-client privi-

lege. Privilege does not automatically apply to attorney conversations. Communications with attorneys are only privileged if they are made for the purpose of seeking or giving legal advice. Written communications (emails) should make clear that this is the purpose—e.g., by stating at the outset that the writer is seeking legal advice. And, if a staff person shares attorney communications or confidential information with others outside the lawyer's presence, especially if he or she shares that information outside the institution—that could waive the privilege of the entire subject matter. And, as explained above, an institution can always choose to waive privilege, even if a staff person would prefer that it not do so. Navigating the boundaries of privilege is very difficult for non-lawyers, and they should not be expected to know all the relevant nuances. It is typically best practice, therefore, to contact counsel promptly, ask for advice, and make a call to discuss the matter.

The principles above can seem tricky and even intimidating. For these reasons, staff may sometimes feel reluctant to involve counsel. But the likelihood of good outcomes increases—and anxiety almost always decreases—when counsel is contacted promptly.

Considerations in Developing and Implementing the Recommendations from the 2026 Updated Consensus Statement on Developing Plans to Recognize and Refer Student-Athletes with a Psychological Concern at the Collegiate Level

The primary purpose of this updated Consensus Statement was to offer recommendations to the athletic trainer, working in collaboration with athletic department and institutional administration, a plan to recognize and refer student-athletes with psychological concerns. The information on building that plan is contained in the various sections of this 2026 Updated Consensus Statement, and information on approaching building a plan is also provided. Considerations in building a recognition and referral plan for student-athlete psychological concerns¹:

1. *Establishing the need for a plan on recognizing and referring student-athletes with psychological concerns.* Utilizing data provided in this 2026 Updated Consensus Statement, a memorandum to administration outlining the key elements of the updated Consensus Statement and the availability of mental health care at the institution and community should be outlined. Once the decision has been made to start this process, initiate

a draft of a document. Consider using the information contained in this 2026 Updated Consensus Statement as a starting point for the document.

2. *Draft the plan for student-athlete psychological concerns document.* Consider using the various sections contained in this updated Consensus Statement when constructing the individual institution student-athlete psychological concerns plan. Be sure to include any institutional mental health emergency plan for use.

3. *Once the draft of the document is finished, share it with athletics administration, the counseling center, health services, risk management, office of student affairs, and general counsel of the institution for review.* Consider including a copy of this 2026 Updated Consensus Statement for all parties to review as the plan is being developed. Consider highlighting sections of the 2026 Updated Consensus Statement per institutional department, particularly risk management and general counsel, for the respective department's consideration in developing the Plan. Having a relationship with the above departments is important; this way the athletic trainer has an easier path for introduction and discussion of the Plan. Have all departments review it, amend and approve of the Plan for legal and procedural purposes. Remember, this document contains "considerations" of what to do, other than any hard rules on emergent care as deemed by the institution, use care when developing the Plan with hard and fast rules that can't be applied to all situations. No one plan can contain guidance on every situation. Each institution will have a variation of the plan based on their dynamics.

4. *Once the plan has been approved by all stakeholders, send it to all sports medicine staff, physicians, coaches, and administrators, along with all approving departments for use.* Encourage each professional to carry the document with them, for no one can tell when a student-athlete may report wanting assistance; having a plan in front of you to help navigate the process is helpful. Ensure that all relevant staff receive instructions regarding the plan.

5. *Review and update your plan annually or as necessary.*

6. *Remain in contact with the counseling services, community mental health care professionals, and institutional departments that interface with the mental health considerations of college students and student-athletes.* Contact the in-house athletic counseling team or campus counselors to talk with them without having to schedule

an appointment for a student-athlete; this maintains the connection to the sports medicine department. Consider having training sessions with the in-house athletic counseling team and/or campus counseling services related to recognizing behaviors to monitor and effective referral methods per institution. Meet with the risk manager annually or more often to go over the sports department and various protocols or recent trends in risk to athletics to see if anything needs addressing.

Utilizing the information contained in this updated 2026 Consensus Statement, along with practical considerations in developing a plan for recognizing and referring student-athletes for psychological concerns will assist the athletic department and institution in developing a Plan and assisting student-athletes in need. Variables such as institutional human resource guidelines,

State or federal laws, statutes, rules, and regulations may impact the development and implementation of these recommendations.

CONCLUSION

The most important factors in recognizing and referring a student-athlete with a psychological concern is understanding antecedents of risk that may challenge a student-athlete's mental health and wellness, education on the prevalence of mental health disorders, challenges to a student-athlete's mental health because of sport participation, early recognition of a potential psychological issue, and effective referral into the mental health care system. The athletic community is in a unique setting to observe and interact with student-athletes. By raising one's awareness to the prevalence of mental disorders in college-age students, understanding the stressors placed on student-athletes, observing for behaviors to monitor, and facilitating an evaluation and care through effectively referring the student-athlete to mental health care professionals for assistance, the athletic trainer, physician, coach, or administrator may make a difference in the life of a student-athlete's health and well-being. Developing a plan to address this growing concern may make the recognition and referral of student-athletes with psychological concerns more effective, as well as addressing risk to the athletic department and institution.

It is recommended that this 2026 Updated Consensus Statement be shared with coaches, athletic administrators, counseling services, office of student affairs, risk managers, and general counsel to better educate and create an interest in developing and enhancing an institutional plan for recognizing and referring student-athletes with psychological concerns.

Recognitions

This Inter-Association 2025 Updated Consensus Statement wishes to recognize two individuals who have contributed to the development of mental health planning in intercollegiate athletics and were strong advocates for the mental health and wellness of student-athletes, Greg Harden, MSW (May 17, 1949-September 12, 2024) and Eric Quandt, JD (June 22, 1951-September 2, 2024). Mr. Harden was a pioneer in student-athlete mental health and wellness as the Executive Associate Athletic Director at the University of Michigan and developed one of the first student-athlete counseling departments in intercollegiate athletics. Mr. Quandt was an honorary member of the National Athletic Trainers' Association and a contributing author to this updated consensus statement before his death, as well as a contributing author to the original 2013 NATA Inter-Association Consensus Statement on Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Collegiate Level. Mr. Quandt was also a contributing author for the 2015 NATA Inter-Association Consensus Statement on Recommendations for Developing a Plan to Recognize and Refer Student-Athletes with Psychological Concerns at the Secondary School Level.

References

1. Neal TL, Diamond AB, Goldman S, et al. Inter-association recommendations for developing a plan to recognize and refer student-athletes with psychological concerns at the collegiate level: an executive summary of a consensus statement. *J Athl Train.* 2013;48(5):716–720. doi:10.4085/1062-6050-48.4.13
2. Neal TL, Diamond AB, Goldman S, et al. Inter-association recommendations for developing a plan to recognize and refer student-athletes with psychological concerns at the secondary school level: a consensus statement. *J Athl Train.* 2015;50(3):231-249. doi:10.4085/1062-6050-50.3.03

3. Mind, Body, and Sport Understanding and Supporting Student-Athlete Mental Wellness. 2014. NCAA. www.NCAAPublications.com
4. National Collegiate Athletic Association. NCAA student-athletes surpass 520, sets new record. 2022. <https://www.ncaa.org/news/2022/12/5/media-center-ncaa-student-athletes-surpass-520-000-set-new-record.aspx>
5. Ebell MH, Siwek J, Weiss BD, et al. Strength of recommendation taxonomy (SORT): a patient-centered approach to grading evidence in the medical literature. *Am Fam Phys*. 2004;69(3):548-556.
6. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed., text revisions. American Psychiatric Association Publishing; 2022.
7. Substance Abuse and Mental Health Services Administration (SAMHSA). Key Substance Use and Mental Health Indicators in the United States: Results from the 2023 National Survey on Drug Use and Health. Department of Health and Human Services, USA. <https://www.samhsa.gov/data/sites/default/files/reports/rpt53012/2023-nsumhss-annual-report.pdf>. Accessed December 17, 2024.
8. Reinert M, Fritze D, & Nguyen T. The State of Mental Health in America. Mental Health America. 2024. <https://mhanational.org/issues/state-mental-health-america>. Accessed December 21, 2024.
9. Substance Abuse & Mental Health Services Administration, Results from the 2010 National Survey on Drug Use and Health: Mental Health Findings, NSDUH Series H-42, HHS Publication No. (SMA)11-4667, Rockville, MD: Substance Abuse and Mental Health Services Administration, 2012.
10. Goodwin RD, Weinberger AH, Kim JH, Wu M, Galea S. Trends in anxiety among adults in the United States, 2008-2018.: rapid increases among young adults. *J Psychiatr Res*. 2020;130:441-446.
11. Kessler RC & Wang PS. The descriptive epidemiology of commonly occurring mental disorders in the United States. *Annual Review of Public Health*. 2008;29:115–129.
12. McLaughlin KA, Greif A, Green J, Gruber MJ, Sampson NA, Zaslavsky AM, Kessler RC. Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents. *Archives of General Psychiatry*. 2012;69(11):1151–1160.
13. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*. 2005;62(6):617–627.
14. Reinert M, Fritze D, Nguyen T. The State of Mental Health in America 2022. Mental Health America. 2022. https://mhanational.org/issues/state-mental-health-health-america?eType=Email-BlastContent&eld=071fe8fa-9a08-419f-989b-f062af601066&sl_tc=2022_State_Of_MH_In_America&sl_gr=grp_2022_state_of_mh_in_america_report. Accessed January 20, 2025.
15. Zablotzky B, Terlizzi EP. Mental health treatment among children aged 5-17 years: United States, 2019. U.S. Department of Health and Human Services National Center for Health Statistics Data Brief, No. 381, September 2020. Retrieved January 27, 2025. <https://www.cdc.gov/nchs/data/databriefs/db381-H-pdf>
16. Cohen RA, Zammitti EP. Access to care among adults aged 18–64 with serious psychological distress: Early release of estimates from the National Health Interview Survey, 2012–September 2015. National Center for Health Statistics. 2016. Retrieved January 27, 2025. http://www.cdc.gov/nchs/nhis/earlyrelease/ER_SPD_Access_2015_P_AUER.pdf
17. Lopez RL & Levy JJ. Student athletes' perceived barriers to and preferences for seeking counseling. *Journal of College Counseling*. 2013;16(1):19-31. <https://doi.org/10.1002/j.2161-1882.2013.00024.x>
18. American College Health Association. American College Health Association-National College Health Assessment III: Reference Group Executive Summary Spring 2024. Silver Spring, MD: American College Health Association; 2024.
19. The Healthy Minds Study 2023-2024. The Healthy Minds Network; 2024. https://healthymindsnetwork.org/wp-content/uploads/2024/09/HMS_national_report_090924.pdf
20. Gouttebarga V, Castaldelli-Maia JM, Gorczynski, P, et al. Occurrence of mental health symptoms and disorders in current and former elite athletes: a systematic review and meta-analysis. *Br J Sports Med*. 2019;53:700-707.

21. 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. *British Journal of Sports Medicine*. 2016;50(3):167-171. <https://doi.org/10.1136/bjsports-2015-095756>
22. Gouttebarga V, Jonkers R, Moen M, et al. The prevalence and risk indicators of symptoms of common mental disorders among current and former Dutch elite athletes. *J Sports Sci*. 2017;35:2148-2156.
23. Chow GM, Bird MD, Gabana NT, Cooper BT, Swanbrow Becker MA. A program to reduce stigma toward mental illness and promote mental health literacy and help-seeking in National Collegiate Athletic Association division I student-athletes. *J Clin Sports Psychol*. 2020;1:1-21. <https://www.doi.org/10.1123/jcsp.2019-0104>
24. Haugen E. Athlete mental health & psychological impact of sport injury. *Operative Tech Sports Med*. 2022;30(1):150898. <https://doi.org/10.1016/j.otsm.2022.150898>
25. Sarac N, Sarac B, Pedroza A, Borchers J. Epidemiology of mental health conditions in incoming division I collegiate athletes. *Phys Sportsmed*. 2018;46(2):242-248. doi: 10.1080/00913847.2018.1427412.
26. Sanfillipo JL, Haralsdotti K, Watson AM. Anxiety and depression prevalence in incoming division I collegiate athletes from 2017 to 2021. *Sport Health*. 2024;16(5):776-782.
27. Yang J, Peek-Asa C, Corlette JD, Cheng G, Foster DT, Albright J. Prevalence of and risk factors associated with symptoms of depression in competitive collegiate student athletes. *Clin J Sport Med*. 2007;17(6):481-487.
28. Weber SR, Winkelmann ZK, Monsma EV, Arent SM, Torres-McGehee TM. An examination of depression, anxiety, and self-esteem in collegiate student-athletes. *Int J Environ Res Public Health*. 2023;20(2):1211. <https://doi.org/10.3390/ijerph20021211>
29. Rice SM, Purcell R, De Silva S, Mawren D, McGorry PD, Parker AG. The mental health of elite athletes: a narrative systematic review. *Sports Med*. 2016;46:1333-1353.
30. Parendes MR, Apaolaza V, Fernandez-Robin C, Hartmann P, Yanez-Martinez D. The impact of the Covid-19 pandemic on subjective mental well-being: The interplay of perceived threat, future anxiety and resilience. *Personality and Individual Differences*. 2021. available online: <https://doi.org/10.1016/j.paid.2020.110455>
31. Graupensperger S, Benson AJ, Kilmer JR, Evans MB. Social (un)distancing: Teammate interactions, athletic identity, and mental health of student-athletes during the COVID-19 pandemic. *Journal of Adolescent Health*. 202;67(5):662-670. <https://doi.org/10.1016/j.jadohealth.2020.08.001>
32. Senisik S, Denerel N, Koyagasioglu O. The effect of isolation on athletes' mental health during the COVID-19 pandemic. *The Physician and Sports Medicine*. 2020; online at: <https://doi.org/10.1080/00913847.2020.1807297>
33. Herdyanto Y, Arif Al Ardha NM, Agustia D, Sholikhan AM, Fathir LW. Mental health condition during COVID-19 pandemic in trained and non-trained adults. *Proceedings of the International Joint Conference on Arts and Humanities. Advances in Social Science, Education and Humanities Research*. 2020;491: <https://doi.org/10.2991/assehr.k.201201.242>
34. Engle GL. The need for a new medical model: a challenge for biomedicine. *Science*. 1977;196:129-136.
35. Engle GL. The clinical application of the biopsychosocial model. *Am J Psychiatry*. 1980;137(5):535-544. <https://doi.org/10.1176/ajp.137.5.535>
36. Ashford JB, LeCroy CW, Williams LR. *Human Behavior in the Social Environment: A Multidimensional Perspective*. 6th ed. Centage Learning; 2018.
37. Neal T. The SAFER-R model addresses biopsychosocial elements and encourages resilience following a critical incident. *Crisis, Stress, and Human Resilience: An International Journal*. 2024;6(2):65-70.
38. DeFreese JD. Athlete mental health care within the biopsychosocial model. *Athl Train & Sports Health Care*. 9(6):243-245.
39. Delfin D, Wallace J, Baez S, et al. Social support, stress, and mental health: examining the stress-buffering hypothesis in adolescent football athletes. *J Athl Train*. 2024;59(5):499-505.
40. Owens N & Anaza E. An exploration of student-athletes perception on the athletic trainer/coach relationship: a study on social support. *J Intercollegiate Sport*. 2024. <https://doi.org/10.17161/jis.u17i3.18209>

41. Rivera MJ, Post EG, Eberman LE. The social determinants of health and athletic trainer availability in Indiana secondary schools. *J Athl Train*. 2024;59(4):381-387.
42. Social determinants of health. Centers for Disease Control and Prevention. Accessed January 11, 2025. <https://health.gov/healthypeople/priority-areas/social-determinants-health>
43. Picha KJ, Welch Bacon CE, Evans Windsor C, Lewis JH, Snyder Valier AR. Athletic trainers' observations of social determinants of health in the collegiate setting: a card study. *J Athl Train*. 2024;59(4):394-402.
44. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. *Annu Rev Public Health*. 2011;32:381-398. <https://doi.org/10.1146/annurev-publhealth-031210-101218>
45. About Adverse Childhood Experiences. Center for Disease Control and Prevention. Accessed January 14, 2025. <https://www.cdc.gov/aces/about/index.html>
46. Swedo EA, Aslam MV, Dahlberg LL, et al. Prevalence of adverse childhood experiences among U.S. adults-behavioral risk factor surveillance system, 2011-2020. *MMWR Morb Mortal Wkly Rep*. 2023;72:707-715.
47. Shonkoff JP, Garner AS. Committee on psychosocial aspects of child and family health, committee on early childhood, adoption, and dependent care, & section on developmental and behavioral pediatrics (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1):e232-e246. <https://doi.org/10.1542/peds.2011-2663>
48. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Amer J Prevent Med*. 1998;14(4):245-258. [https://doi.org/10.1016/s0749-3797\(98\)00017-8](https://doi.org/10.1016/s0749-3797(98)00017-8)
49. Herzog JL, Schmahl C. Adverse childhood experiences and the consequences on neurobiological, psychosocial, and somatic conditions across the lifespan. *Front Psychiatry*. 2018;9:1-11. [www.doi:10.3389/fpsy.2018.00420](https://doi.org/10.3389/fpsy.2018.00420)
50. Ross N, Gilbert R, Torres S, et al. Adverse childhood experiences: assessing the impact on physical and psychosocial health in adulthood and the mitigating role of resilience. *Child Abuse & Neglect*. 2020;104440. <https://doi.org/10.1016/j.chiabu.2020.104440>
51. Landa-Blanco M, Vasquez G, Portillo G, Sprovierro F, Echenique Y. The impact of adverse childhood experiences on mental health, sexual risk behaviors, and alcohol consumption in adulthood. *Front Psychiatry*. 2024;15:1352824. [www.doi:10.3389/fpsy.2024.1352824](https://doi.org/10.3389/fpsy.2024.1352824)
52. Calhoun CD, Stone KJ, Cobb AR, Patterson MW, Danielson CK, Bendezu JJ. The role of social support in coping with psychological trauma: an integrated biopsychosocial model for posttraumatic stress recovery. *Psychiatric Quart*. 2022;93:949-970.
53. McLaughlin KA, Greif Green J, Gruber MJ, Sampson NA, Zaslavsky AM, Kessler RC. Childhood adversities and first onset of psychiatric disorders in a national sample of US adolescents. *Arch Gen Psychiatry*. 2012;69(11):1151-1160.
54. Merrick MT, Ports KA, Ford DC, Afifi TO, Gershoff ET, Grogan-Kaylor A. Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse Neglect*. 2017;69:10-19. <https://doi.org/10.1016/j.chiabu.2017.03.016>
55. Madigan S, Thiemann R, Deneault AA, et al. Prevalence of adverse childhood experiences in child population samples; a systematic review and meta-analysis. *JAMA Pediatr*. 2017;doi:10.1001/jamapediatrics.2024.4385
56. Hilgan Bryan R. Getting to why: adverse childhood experiences' impact on adult health. *J Nurse Pract*. 2018;15(2):153-154.
57. Hughes K, Bellis MA, Hardcastle KA, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Health*. 2017;2(8):e356-e366. [https://doi.org/10.1016/S2468-2667\(17\)30118-4](https://doi.org/10.1016/S2468-2667(17)30118-4)
58. Watt T, Kim S, Ceballos N, Norton C. People who need people: the relationship between adverse childhood experiences and mental health among college students. *J Amer College Health*. 2022;170(4):1265-1273.
59. Karatekin C. Adverse childhood experiences (ACEs), stress, and mental health in college students. *Stress and Health*. 2017;34(1):36-45.
60. Schilling EA, Aseltine RH, Gore S. Adverse childhood experiences and mental health in young adults: a longitudinal survey. 2007. *BMC Public Health*. 2007;7:30. <https://doi.org/10.1186/1471-2458-7-30>

61. Santaularia J, Johnson M, Hart L, Haskett L, Welsh E, Faseru B. Relationships between sexual violence and chronic disease: a cross-sectional study. *BMC Pub Health*. 2014;14:1286. <https://www.biomedcentral.com/1471-2458/14/1286>.
62. Sareen J, Cox BJ, Stein MB, Afifi TO, Fleet C, Asmundson GJG. Physical and mental comorbidity, and suicidal behavior associated with posttraumatic stress disorder in a large community sample. *Psychosomatic Med*. 2007;69(3):242-248.
63. Clum GA, Calhoun KS, Kimerling R. Associations among symptoms of depression and posttraumatic stress disorder and self-reported health in sexually assaulted women. *J Nerv Mental Disorders*. 2000;188(10):671-678.
64. Cook JM, Pilver C, Dinnen S, Schnurr PP, Hoff R. Prevalence of physical and sexual assault and mental health disorders in older women: findings from a nationally representative sample. *Am J Geriatr Psychiatry*. 2013;21(9):877-886.
65. Dunmore E, Clark DM, Ehlers A. A prospective investigation of the role of cognitive factors in persistent posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behav Res Therapy*. 2001;39:1063-1084.
66. Sulkava S, Haukka J, Sulkava R, Laatikainen T, Paunio T. Association between psychological distress and incident dementia in a population-based cohort in Finland. *JAMA Net*. 2022;5(12): e2247115.doi:10.1001/jamanetworkopen.2022.47115.
67. Watters ER, Martin G. Health outcomes following childhood maltreatment: an examination of the biopsychosocial model. *J Aging & Health*. 2021;33(9):596-606.
68. Khalifeh H, Moran P, Borschmann R, Dean K, Hart C, Hogg J, Osborn D, Johnson S, Howard LM. Domestic and sexual violence against patients with severe mental illness. *Psychol Med*. 2015;45:875-886.
69. Orchowski LM, Gidycz CA. Psychological consequences associated with positive and negative response to disclosure of sexual assault among college women: a prospective study. *Violence Against Women*. 2015;21(7): 803-823.
70. Monroe LM, Kinney LM, Weist MD, Springs Dafeamekpor D, Dantzler J, Reynolds MW. The experience of sexual assault: findings from a statewide victim needs assessment. *J Interpersonal Violence*. 20(7):767-776.
71. Calhoun CD, Stone KJ, Cobb AR, Patterson MW, Danielson CM, Bendezu JJ. The role of social support in coping with psychological trauma: an integrated biopsychosocial model for posttraumatic stress recovery. *Psychiatric Quarterly*. 2022;93:949-970.
72. Cook JM, Pilver C, Dinnen S, Schnurr PP, Hoff R. Prevalence of physical and sexual assault and mental health disorders in older women: findings from a nationally representative sample. *Am J Geriatr Psychiatry*. 2013;21(9):877-886.
73. Campbell R, Wasco SM, Aherns CE, Seft T, Barnes HE. Preventing the “second rape”: rape survivors’ experience with community service providers. *J Interpersonal Violence*. 2001;16(12):1239-1259.
74. Campbell R, Dworkin E, Cabral G. An ecological model of the impact of sexual assault on women’s mental health. *Trauma, Violence, & Abuse*. 2009;10(3):225-246.
75. Nickerson A, Steenkamp M, Aerka IM, Salters-Pedneault K, Carper TL, Barnes JB, Litz BT. Prospective investigation of mental health following sexual assault. *Depress Anxiety*. 2013 May;30(5):444-50. doi: 10.1002/da.22023. Epub 2012 Nov 16. PMID: 23165889.
76. Brady KT. Posttraumatic stress disorder and comorbidity: recognizing the many faces of PTSD. *J Clin Psychiatry*. 1997;58:12-15.
77. Bates S. Revenge porn and mental health: a qualitative analysis of the mental health effects of revenge porn on female survivors. *Fem Criminology*. 2017;12(1):22-42.
78. Khadr S, Clarke V, Wellings K, Villalta L, Goddard A, Wech J, et al. Mental and sexual outcomes following sexual assault in adolescents: a prospective study. *Lancet Child & Adolesc Health*. 2018;2(9):654-665.
79. Loya RM. Rape as an economic crime: the impact of sexual violence on survivor’s employment and economic well-being. *J Interpersonal Violence*. 2015;30(16):2793-2813.
80. Garnets L, Herek GM, Levy B. Violence and victimization of lesbians and gay men. *J Interpersonal Violence*. 1990;5(3):366-383.

81. Collin-Vezina D, Daigneault I, Hebert M. Lessons learned from child sexual abuse research: prevalence, outcomes, and preventive strategies. *Child & Adolescent Mental Health*. 2013;7:22. <https://www.capmh.com/content/7/1/22>.
82. Jonzon E, Lindblad F. Adult female victims of child sexual abuse: multitype maltreatment and disclosure characteristics related to subjective health. *J Interpersonal Violence*. 2005;20(6):651-666.
83. Spataro J, Mullen PE, Burgess PM, Wells DL, Moss SA. Impact of child sexual abuse on mental health. *Br J Psychiatry*. 2004;184:416-421.
84. Monroe LM, Kinney LM, Weist MD, Springs Dafeamekpor D, Dantzler J, Reynolds MW. The experience of sexual assault: findings from a statewide victim needs assessment. *J Interpersonal Violence*. 2005;20(7):767-776.
85. Watters ER, Martin G. Health outcomes following childhood maltreatment: an examination of the biopsychosocial model. *J Aging & Health*. 2021;33(8):596-606.
86. Starzynski LL, Ullman SE, Townsend SM, Long LM, Long SM. What factors predict women's disclosure of sexual assault to mental health professionals? *J Commun Health*. 2007;35(5), 619-638.
87. Jonzon E, Lindblad F. Disclosure, reactions, and social support: findings from a sample of adult victims of child sexual assault. *Child Maltreatment*. 2004;9(4):190-200.
88. Campbell R, Raja S. Secondary victimization of rape victims: insights from mental health professionals who treat survivors of violence. *Violence & Victims*. 1999;14:261-275.
89. Zhai Y & Du X. Trends in diagnosed posttraumatic stress disorder and acute stress disorder in US college students, 2017-2022. *JAMA Network Open*. 2024;7(5):e2413874. <https://doi:10.1001/jamanetworkopen.2024.13874>
90. Padaki , AS, Noticewala MS, Levine WN, Ahmad CS, et al. Prevalence of posttraumatic stress disorder symptoms among young athletes after anterior cruciate ligament rupture. *Orthopedic Journal of Sports Medicine*. 2018;6(7):2325967118787159.
91. Lynch JH. Posttraumatic stress disorder in elite athletes. *Current Sports Med Reports*. 2021;20(12):645-650.
92. Brassil HE, Salvatore AP. The frequency of post-traumatic stress disorder symptoms in athletes with and without sports related concussion. *Clin Trans Med*. 2018;7(25):1-9.
93. Wenzel T, Zhu L. Posttraumatic stress in athletes. In: Baron DA, Reardon CL, Baron SH, eds. *Clinical Sports Psychiatry: An International Perspective*. Hoboken, New Jersey: Wiley-Blackwell; 2013.
94. Appaneal RN, Perna FM, Larkin KT. Psychophysiological response to severe sports injury among competitive male athletes: a preliminary investigation. *J Clin Sports Psych*. 2007;1:68-88.
95. Day MC, Schubart N. The impact of witnessing athletic injury: a qualitative examination of vicarious trauma in artistic gymnastics. *J Sports Sciences*. 2012; 30(8):743-753.
96. Reardon CL, Hainline B, Aron CM, et al. Mental health in elite athletes: International Olympic Committee consensus statement. *British Journal of Sports Medicine*. 2019;53:667-699.
97. Thomson P & Jaque SV. Visiting the muses: Creativity, coping, and PTSD in talented dancer and athletes. *American Journal of Play*. 2016;8(3):363-377.
98. O'Connell S & Manschreck TC. Playing through the pain: Psychiatric risks among athletes. *Current Psychiatry*. 2012;11(7):16-20.
99. Bryant RA, Nickerson A, Creamer M, O'Donnell M, et al. Trajectory of post-traumatic stress following traumatic injury: 6-year follow up. *The British Journal of Psychiatry*. 2015;206:417-423.
100. Rosen V & Ayers G. An update on the complexity and importance of accurately diagnosing post-traumatic stress disorder and comorbid traumatic brain injury. *Neuroscience Insights*. 2020;15:1-8.
101. Moore, M. (2017). Stepping outside of their comfort zone: Perceptions of seeking behavioral health services amongst college athletes. *Journal of Issues in Intercollegiate Athletics*, 2017 Special Issue, 130-144. https://crsi-jiia.org/wp-content/uploads/2017/07/JIIA_2017_SI_08.pdf
102. Aron CM, Harvey S, Hainline B, Hitchcock ME, Reardon CL. Post-traumatic stress disorder (PTSD) and other trauma-related mental health disorders in elite athletes: a narrative review. *BJSM*. 2019;53:779-784.

103. Prins A, Bovin MJ, Kimerling R, Kaloupek DG. The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5); 2015.
104. Kilpatrick DG, Resnick HS, Friedman MJ. Severity of Post-Traumatic Stress Symptoms-Adult (National Stressful Events Survey PTSD Short Scale (NSESSS). American Psychiatric Association; 2013.
105. Gil F, Guerra de Andrade A, Castaldelli-Maia JM. Discussing prevalence, impacts, and treatment of substance use disorders in athletes. *Int Rev Psychiatry*. 2016;28(6):1-7.
106. De Souza NL, Esopenko C, Conway FN, Todaro SM, Buckman JF. Patterns of health behavior affecting mental health in collegiate athletes. *J Am Coll Health*. 2021;69(5):495-502.
107. Kinettal BA, Cherenack EM, Bianchi-Rossi C. Stress, anxiety, binge drinking, and substance abuse among college student-athletes: a cross-sectional analysis. *J Intercollegiate Sport*. 2021;14(2):116-135.
108. Menendez D. NCAA removes marijuana from banned drug list, shifts from punishment to harm-reduction. *Spectrum News NY 1*. 26 June, 2024. <https://nyp1.com/nyc/all-boroughs/sports/2024/06/26/ncaa-marijuana-drug-testing-rule-change>
109. National Organization for the Reform of Marijuana Laws. (NORML). State Laws. <https://norml.org/laws/>. Accessed January 1, 2025.
110. Benoy R, Ramirez C, Hitchcock M, Reardon C. Cannabis use in adolescent and young adult athletes: a clinical review. *Sports Health*. 2024;16(2):279-284.
111. Mlost J, Bryk M, Starowicz K. Cannabidiol for pain treatment: focus on pharmacology and mechanism of action. *Int J Molecular Sciences*. 2020;21(8870):2-21.
112. Piper BJ, DeKeuster RM, Beals ML, Cobb CM, et al. Substitution of medical cannabis for pharmaceutical agents for pain, anxiety, and sleep. *J Psychopharmacology*. 2017;31(5):569-575.
113. Siklos-Whillans J, Bacchus A, Manwell LA. A scoping review of the use of cannabis and its extracts as potential harm reduction strategies: insights from preclinical and clinical research. *Int J Ment Health Addiction*. 2021;19:1527–1550.
114. Sikyta M, Konin JG, Kutz M. The endocannabinoid system signaling, a precursor to homeostasis: a scoping review. *Internet J Allied Health Sciences Practice*. 2024;22(4), Article 10.
115. Zou S, Kumar U. Cannabinoid receptors and the endocannabinoid system: signaling and function in the central nervous system. *Int J Mol Sci*. 2018;19(3):833. doi:10.3390/ijms19030833. PMID: 29533978; PMCID: PMC5877694.
116. Kruger DJ, Kruger JS, Collins RL. Frequent cannabis users demonstrate low knowledge of cannabinoid content and dosages. *Drugs: Education, Prevention and Policy*. 2020;28(1):97-103.
117. Petrilli K, Ofori S, Hines L, Taylor G, Adams S, Freeman TP. Association of cannabis potency with mental ill health and addiction: a systematic review. *Lancet Psychiatry*. 2022;9(9):736-750.
118. Connor JP, Stjepanović D, Le Foll B, Hoch E, Budney AJ, Hall WD. Cannabis use and cannabis use disorder. *Nat Rev Dis Primers*. 2021;7(1):16.
119. Cannabis Use Disorder. Cleveland Clinic. <https://my.clevelandclinic.org/health/diseases/cannabis-use-disorder> Accessed January 1, 2025.
120. Van Halm-Lutterodt N, Albright JA, Storlie NR, Mesregah MK, Ansari K, Balmaceno-Criss M, Daher M, Bartels-Mensah M, Xu Y, Diebo BG, Hai Y, Chandler DR, Daniels AH. Cannabis use disorder and complications after anterior cervical discectomy and fusion. *World Neurosurg*. 2024;181:e1001-e1011.
121. West ML, Sharif S. Cannabis and psychosis. *Psychiatr Clin North Am*. 2023;46(4):703-717.
122. Türkoğlu Ö, Ertuğrul A. The role of cannabis in the development of psychosis. *Türk Psikiyatri Derg*. 2024;35(3):234-244.
123. Cannabis-Related Resources for the Athletic Trainer. National Athletic Trainers' Association. <https://nata.org/health-topics-cannabis-use> Accessed January 22, 2025.
124. David SL, Konin JG, Farris J. Cannabis content in athletic training and physical therapy curriculums in the United States. *Internet J Allied Health Sciences Practice*. 2023;21(1), Article 17.
125. Konin JG, Onate J. Integrating cannabis education into the athletic training curriculum. *J Sports Med Allied Health Sciences: Official J Ohio Athletic Trainers Association*. 2024;9(3), Article 4.

126. Konin JG. The cannabis shift: how we educate and message is key. *Current Sports Medicine Reports*. 2024;23(7):256-257.
127. Johnson AG. *Privilege, Power, and Difference* (3rd ed.). New York, NY: McGraw-Hill; 2018.
128. Ahad AA, Sanchez-Gonzalez M, Junquera P. Understanding and addressing mental health stigma across cultures for improving psychiatric care: A narrative review. *Cureus*. 2023;15(5):e39549. Published 2023 May 26. doi:10.7759/cureus.39549
129. American Psychological Association. *Equity, Diversity, and Inclusion: Inclusive Language Guide* (2nd ed.). Washington, DC: American Psychological Association; 2023.
130. Buggs M, Catalano DCJ, Wagner R. Sexism, heterosexism, and trans* oppression: An integrated perspective. In Adams M, Bell LA, Goodman DJ, Shlasko D, Briggs RR, Pacheco R, eds. *Teaching for Diversity and Social Justice*. (4th ed.). New York, NY: Routledge; 2023.
131. Garrett-Walker J., Broussard D A, Garrett-Walker WL. Re-Imagining masculinities: How Black queer feminism can liberate Black people from the toxicity of patriarchal masculinity. *J Black Sex Relatsh*. 2019;5(4):69-98. doi: <https://doi.org/10.1353/bsr.2019.0010>
132. Hyde JS, Bigler RS, Joel D, Tate CC, van Anders SM. The future of sex and gender in psychology: Five challenges to the gender binary. *Am Psychol*. 2019;74(2):171-193. <https://doi.org/10.1037/amp0000307>
133. Beale JM, Creighton SM. Long-term health issues related to disorders or differences in sex development/intersex. *Maturitas*. 2016;94:143–8. pmid:27823735
134. Killermann S. *The Social Justice Advocate's Handbook: A Guide to Gender* (2nd ed.). Austin, TX: Impetus Books; 2017.
135. Shingles, RR, Harriell K. *Insight and Action for Better Patient Care: Clinical Pearls and Strategies*. New York: McGraw Hill; In press.
136. National LGBTQIA+ Health Education Center. *LGBTQIA+ Glossary of Terms for Health Care Teams*. Boston, MA: The Fenway Institute; 2024.
137. Killermann S. *Defining LGBTQ+: A Guide to Gender and Sexuality Terminology*. Sam Killermann; 2019.
138. Spector RE. *Cultural Diversity in Health and Illness* (9th ed.). Upper Saddle River, NJ: Prentice Hall; 2017.
139. Substance Abuse and Mental Health Services Administration. Key substance use and mental health indicators in the United States: Results from the 2023 National Survey on Drug Use and Health (HHS Publication No. PEP24-07-021, NSDUH Series H-59). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration; 2024a. Accessed February 19, 2025. <https://www.samhsa.gov/data/report/2023-nsduh-annual-national-report>
140. Substance Abuse and Mental Health Services Administration. (2024b). NSDUH Data Spotlight: Health disparities among the Hispanic/Latino population. 2024b;1(1). Accessed February 19, 2025. Chrome-extension://efaidnbmnibpcjpcglclefindmkaj/<https://www.samhsa.gov/data/sites/default/files/reports/rpt53096/NSDUH-Spotlight-Hispanic.pdf>
141. Substance Abuse and Mental Health Services Administration. NSDUH Data Spotlight: Health disparities among the Asian population. 2024c;1(2). Accessed February 19, 2025. chrome-extension://efaidnbmnibpcjpcglclefindmkaj/<https://www.samhsa.gov/data/sites/default/files/reports/rpt53097/NSDUH-spotlight-asian.pdf>
142. Substance Abuse and Mental Health Services Administration. Highlights for the 2023 National Survey on Drug Use and Health: Mental health. (2024d). Accessed February 19, 2025. chrome-extension://efaidnbmnibpcjpcglclefindmkaj/<https://www.samhsa.gov/data/sites/default/files/NSDUH%202023%20Annual%20Release/2023-nsduh-main-highlights.pdf>
143. Substance Abuse and Mental Health Services Administration. Results from the 2023 National Survey on Drug Use and Health: Mental health detailed tables. (2024e). Accessed February 19, 2025. https://www.samhsa.gov/data/sites/default/files/reports/rpt47100/NSDUHDetailedTabs2023_v1/NSDUHDetailed-Tabs2023_v1/2023-nsduh-detailed-tables-sect6pe.htm#tab6.1a

144. Rosenwohl-Mack A, Tamar-Mattis S, Baratz AB, et al. A national study on the physical and mental health of intersex adults in the U. S. *PLoS One*. 2020;15(10): e0240088. <http://doi.org/10.1371/journal.pone.0240088>
145. Dawson L, Frederiksen B, Long M. Mental health care needs and experiences among LGBT+ people: Issue brief. KFF. 2023, June 30. <https://www.kff.org/womens-health-policy/issue-brief/mental-health-care-needs-and-experiences-among-lgbt-people/>
146. James SE, Herman JL, Durso LE, Heng-Lehtinen R. Early insights: A Report of the 2022 U.S. Transgender Survey. National Center for Transgender Equality, Washington, DC. 2024. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://transequality.org/sites/default/files/2024-02/2022%20USTS%20Early%20Insights%20Report_FINAL.pdf
147. Braveman PA, Arkin E, Proctor D, Kauh T, Holm N. Systemic and structural racism: Definitions, examples, health damages, and approaches to dismantling. *Health Aff*. 2022;41(2): 171-178. doi: 10.1377/hlthaff.2021.01394
148. Brown-Rice, K. Examining the theory of historical trauma among Native Americans. *Prof Couns*. 2013;3(3):117-130.
149. Dawson L, Long M, Frederikson B. LGBT+ people's health status and access to care: Issue brief - 10171. KFF. 2023, June 30. <https://www.kff.org/report-section/lgbt-peoples-health-status-and-access-to-care-issue-brief/>
150. Frost DM, Meyer IH. Minority stress theory: Application, critique, and continued relevance. *Curr Opin Psychol*. 2023;51:101579. doi: [10.1016/j.copsyc.2023.101579](https://doi.org/10.1016/j.copsyc.2023.101579)
151. Cartwright L & Neal T. Considerations for the stressors of sexual minority identity and how It affects mental health for those who identify as LB-GTQ+. *IJATT*. 2022;27:47-53 <https://doi.org/10.1123/ijatt.2020-0006>
152. Kroshus E & Davoren AK. Mental health and substance use of sexual minority college athletes. *J Am Coll Health*. 2016;64(5):371-379.
153. Caputi TL, Smith D, Ayers JW. Suicide risk behaviors among sexual minority adolescents in the United States, 2015. *JAMA*. 2017;318(23):2349–2351. <https://doi.org/10.1001/jama.2017.16908>
154. Mirza S, Rooney C. Discrimination Prevents LGBTQ People from Accessing Health Care. Center for American Progress. 2018. <https://www.americanprogress.org/issues/lgbt/news/2018/01/18/445130/discrimination-prevents-lgbtq-people-accessing-health-care/>. Accessed February 9, 2025.
155. GLSEN. The Safe Space Kit: Guide to being an ally to LGBT students. 2016. Retrieved at: <https://www.glsen.org/sites/default/files/GLSEN%20Safe%20Space%20Kit.pdf>
156. Rogers SM, Crossway AK, Aronson PA. Creating a LGBTQ+ inclusive culture in the athletic training facility. *Clinical Practice in Athletic Training*. 2018; 1(1):11-14.
157. Ackerman CE. Positive Psychology Program. 2018. <https://positivepsychologyprogram.com/resilience-activities-worksheets/>. Accessed February 8, 2025.
158. Rusch N, Angermeyer MC, & Corrigan PW. Mental health stigma: concepts, consequences, and initiatives to reduce stigma. *European Psychiatry*. 2005;20:529-539.
159. Corrigan PW & Watson AC. Understanding the impact of stigma on people with mental illness. *World Psychiatry*. 2002;1(1):16-20.
160. Corrigan PW & Rao D. On the self-stigma of mental illness: stages, disclosures, and strategies for change. *Canadian J Psychiatry*. 2012;57(8):464-469.
161. Semrau M, Gronholm PC, Eaton J, Maulik PK, et al.) Reducing stigma and improving access to care for people with mental health conditions in the community: protocol for a multi-site feasibility intervention study (Indigo-Local). *Int J Mental Health Services*. 2024;18(35):1-16. <https://doi.org/10.1186/s13033-024-00649-3>
162. Chow GM, Bird MD, Gabana NT, Cooper BT, Swanbrow Becker MA. A program to reduce stigma toward mental illness and promote mental health literacy and help-seeking in National Collegiate Athletic Association division I student-athletes. *J Clin Sports Psychol*. 2020; <https://www.doi.org/10.1123/jcsp.2019-0104>
163. Balayar B & Langlais M. Socioemotional competencies and happiness: the moderation of mindfulness and social media engagement for emerging adults. *Academia Mental Health and Well-Being*. 2024;1: <https://doi.org/10.20935/MHealthWellB7436>

164. Rucker M & Hall CK. Cyberbullying: awareness & prevention in college & social media. n.d. Retrieved from <https://www.affordablecollegesonline.org/college-resource-center/cyberbullying-awareness/>
165. Gilbert DT, Lieberman MD, Morewidge CK, Wilson TD. The particular longevity of things not so bad. *Psychological Science*, 15(1), 14-19. <https://doi.org/10.1111/j.0963-7214.2004.01501003.x>
166. Etzel, EF, AP Ferrante, JW Pinkney. 1996. Counseling college student-athletes: issues and interventions (2nd Ed.). Morgantown, WV: Fitness Information Technology.
167. Etzel EF. Understanding and promoting college student-athlete health: essential issues for student-affairs professionals. *Journal of Student Affairs Research and Practice*. 2006;43(3):894-922.
168. Humphrey, JH, DA Yow, WW Bowden. 2000. Stress in college athletics: causes, consequences, coping. New York, NY: Haworth Half-Court Press. .cvl;t-grf
169. Kohlstedt, SS. Psychosocial development in college students: a cross-sectional comparison between athletes and non-athletes. ProQuest Thesis. 2012. <https://doi.org/10.57912/23864745.v1>
170. Raglin JS, Wilson GS. Overtraining in athletes (pg. 191-207). In: Hanin, Yuri. 2000. Emotions in sport. Champaign, IL: Human Kinetics.
171. Weiss, SM. A comparison of maladaptive behaviors of athletes and nonathletes. *The Journal of Psychology*. 1999;133(3):315-322.
172. Wilson, G. & Pritchard, M. (2005). Comparing sources of stress in college student athletes and non-athletes. *Athletic Insight: The Online Journal of Sport Psychology*. Retrieved January 6, 2025: <http://www.athleticinsight.com/Vol7Iss1/StressAthletesNonathletes.htm>.
173. Zaichkowsky L, Kane MA, Blann W, Hawkins K. 1993. Career transition needs of athletes: A neglected area of research in sport psychology. *Proceedings: 8th World Congress of Sport Psychology* (pp. 785-787), Lisbon, Portugal
174. Etzel EF, Watson JC, Visek, AL, Maniar, SD. Understanding and promoting college student-athlete health: Essential issues for student affairs professionals. *NASPA Journal*. 2006;43(3):518-546.
175. Derman W, Schwellnus MP, Lambert MI, Emms M, Sinclair-Smith C, Kirby P, Noakes TD. The 'worn-out athlete': a clinical approach to chronic fatigue in athletes. *J Sports Sci*. 1997;15(3):341-51.
176. Gould, D. Personal motivation gone awry: burnout in competitive athletes. *Quest*. 1996;48(3):275-289.
177. Gould D, Dieffenbach K. Overtraining, under-recovery, and burnout in sport (pg. 25-35). In: Kellmann M. (Ed.). 2002. Enhancing recovery: preventing underperformance in athletes. Champaign, IL: Human Kinetics.
178. Hanin Y. Individually optimal recovery in sports: An application of the IZOF model (pg. 199-217). In: Kellmann M. (Ed.). 2002. Enhancing recovery: preventing underperformance in athletes. Champaign, IL: Human Kinetics.
179. Kellmann M & Kallus KW. Mood, recovery-stress state, and regeneration (pg. 101-117). In: Lehmann M, Foster C, Gastmann U, Keizer H & Steinacker JM (Eds.). 1999. Overload, fatigue, performance incompetence, and regeneration in sport fatigue, performance incompetence, and regeneration in sport (pp. 101-117). New York, NY: Plenum.
180. Kellmann M. Psychological assessment of under-recovery (pg. 37-55). In M. Kellmann (Ed.). 2002. Enhancing recovery: preventing underperformance in athletes. Champaign, IL: Human Kinetics.
181. Puffer JC & McShane JM. Depression and chronic fatigue in athletes. *Clinics in Sport Medicine*. 1992;11(2):327-338.
182. Raedeke TD. Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport & Exercise Psychology*. 1997;19(4):396-417.
183. Shuer ML, Dietrich MS. Psychological effects of chronic injury in elite athletes. *WJM*. 1997;166(2):104-109.
184. Silva JM. An analysis of the training stress syndrome in competitive athletics. *Journal of Applied Sport Psychology*. 1990;2(1):5-20.
185. Tsuno N, Besset A, Ritchie K. Sleep and Depression. *J of Clinical Psychiatry*. 2005;66(10):1254-1269.
186. Voelker R. Stress, sleep loss, and substance abuse create potent recipe for college depression. *JAMA*. 2004;291(18):2177-2179.

187. Yang J, Peek-Asa C, Corlette JD, Cheng G, Foster DT, Albright J. Prevalence of and risk factors associated with symptoms of depression in competitive collegiate student athletes. *Clin J Sport Medicine*. 2007;17(6):481-487.
188. Yukymenko-Lescroant MA. Balancing academics and athletics: examining academic and athletic identity profiles in a large sample of NCAA division I college athletes. *Heliyon*. 2014;10: e40075. <https://doi.org/10.1016/j.heliyon.2024.e40075>
189. Thompson F, Rongen F, Cowburn I, Till K. A longitudinal mixed methods case study investigation of the academic, athletic, psychosocial and psychological impacts of being sport school student athlete. *Sports Medicine*. 2024; <https://doi.org/10.1007/s40279-024-02021-4>
190. Choi J & Smith AB. NCAA division I collegiate athlete's motivational perspectives pertaining to their academic and athletic roles. *J Athlete Develop Experience*. 2024;6(2):127-140.
191. Weight E, Haroldson JM, Harry M, Rudd E. Adversity and resiliency: athlete experiences within U.S. college sport. *J Intercollegiate Sport*. 2024;17(3). <https://doi.org/10.17161/2fndtf13>
192. Tran AGTT, Eustice KL, Lam CK, Holzapfel J, Minert JS. Foul play: implicit and explicit attitudes toward student-athletes. *J Diversity in Higher Ed*. <https://doi.org/10.1037/dhe0000538>
193. Smith DK, Hale BD, & Collins D. Measurement of exercise dependence in bodybuilders. *J Sports Medicine & Physical Fitness*. 1998;38(1):66-74.
194. Lochbaum M, Cooper S, Limp S. The athletic identity measurement scale: a systematic review with meta-analysis from 1993 to 2001. *European Journal of Investigation in Health, Psychology, and Education*. 2022;12:1391-1414.
195. Brewer BW, Van Raalte JL, Linder DE. Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology*. 1993;24(2):237-254.
196. Mitchell TO, Nesti M, Richardson D, Midgley AW, Eubank M, Littlewood M. Exploring athletic identity in elite-level English youth football: a cross-sectional approach. *Journal Sports Science*. 2014;32(13):1294-1299.
197. Stokowski S, Fridley A, Croft C, Stensland, P, Arthur-Banning S. Athlete identity and mental health among NCAA division III student-athletes. *Journal of Athlete Development and Experience*. 2022;4(1): Article 6. <https://doi.org/10.25035/jade.04.01.06>
198. Brewer BW & Cornelius, AE. Norms and factorial invariance of the athletic identity measurement scale (AIMS). *Academic Athletic Journal*. 2001;15:103-113.
199. Skilbred A, Strandbu A, & Loland S. Performing performance: young aspiring athletes' presentation of athletic identity. *Frontiers in Sports & Active Living*. 2024;6:1383559. <https://doi:10.3389/fspor.2024.1383559>
200. Baillie PH, Danish SJ. Understanding the career transition of athletes. *Sport Psychology*. 1992;6(1):77-98.
201. McPherson BD. Retirement from professional sport: the process and problems of occupational and psychological adjustment. *Sociological Symptoms*. 1980;30:126-143.
202. Muhonen J, Stirling A, Kokkonen M. Athletic identity affects prevalence and disclosure of emotional abuse in Finnish athletes. *Frontiers in Sports and Active Living*. 2024;6:1406949. <https://doi:10.3389/fspor.2024.1406949>
203. Schmid MJ, Hlasova H, Ronkainen NJ, Conzelmann A, Schmid J. Leaving elite sport, abandoning athletic identity? Development and predictors of athletic identity post-retirement. *Ger J Exerc Sport Res*. 2024;53(3):450-461.
204. Roberts K, Kuhlman K, Byrd, M, Hunt T. The influence of athletic identity on mental health symptoms during retirement from sport. *J Sport Rehabil*. 2023;32(5):630-634. doi:10.1123/jsr.2022-0362.
205. Willis ZS, Arthur-Cameselle JN, Keeler LA, Robey HM. Career transition in intercollegiate athletes with above average athletic identity: a qualitative analysis of transition experiences, coping, and the role of religious faith. *J Study of Sports and Athletes in Ed*. 2024; published online. <https://doi.org/10.1080/19357397.2024.2321821>
206. Reardon CL, Gorczynski P, Hainline B, Hitchcock M, Rice S. Anxiety disorders in athletes. *Clin Sports Med*. 2024;43(1):33-52.

207. Simons C, Martin LA, Balcombe L, Dunn PK, Clark RA. Mental health impact on at-risk high-level athletes during COVID-19 lockdown: A pre-, during and post-lockdown longitudinal cohort study of adjustment disorder. *J Science Med Sport*. 2021;24(4):329-331.
208. Jones CM & Tenenbaum G. Adjustment disorder: a new way of conceptualizing the overtraining syndrome. *Intern Review Sport Ex Psych*. 2009;2:181-197.
209. Åkesdotter C, Kenttä G, Eloranta S, Franck J. The prevalence of mental health problems in elite athletes. *J Science Med Sport*. 2020;23(4):329-335.
210. Aron CM, Harvey S, Hainline B, Hitchcock ME, Reardon CL. Post-traumatic stress disorder (PTSD) and other trauma-related mental disorders in elite athletes: a narrative review. *Br J Sports Med*. 2019;53(12):779-784.
211. Putukian M. The psychological response to injury in student athletes: a narrative review with a focus on mental health. *Br J Sports Med*. 2016;50(3):145-148.
212. Park S, Lavalley D, Tod D. Athletes' career transition out of sport: A systematic review. *International Review Sport Ex Psych*. 2013;6(1):22-53.
213. Roberts K, Kuhlman K, Byrd M, Hunt T. The influence of athletic identity on mental health symptoms during retirement from sport. *J Sport Rehab*. 2023;32(5):630-634.
214. Tabassum Y, Sattar S, Zara SM, Din BMU, Butt MZI. Reason about burnout of athletes at university level: an exploratory study. *Elem Ed Online*. 2021;20(1):4804-4819.
215. Lonsdale C, Hodge K, & Rose E. Athlete burnout in elite sport: a self-determination perspective. *J Sports Sciences*. 2009;27(8):785-795.
216. Baker J, Cote J, & Abernathy B. Sport-specific practice and the development of expertise decision-making in team ball sports. *J Applied Sport Psychology*. 2003;15:12-25.
217. Hodge K, Lonsdale C, & Ng JYY. Burnout in elite rugby: relationships with basic psychological needs fulfillment. *J Sport Sciences*. 2008;26(8):835-844.
218. Gould D. & Whitley MA. Sources and consequences of athletic burnout among college athletes. *J Intercollegiate Sport*. 2009;2(1):16-30.
219. Cresswell SL & Eklund RC. The athlete burnout syndrome: a practitioner's guide. *New Zealand J Sports Med*. 2003;31:4-9.
220. Lonsdale C & Hodge K. Temporal ordering of motivational quality and athlete burnout in elite sport. *Medicine & Science in Sport & Exercise*. 2011;43(5):913-921.
221. Gerber M, Gyga B, Cody R. Coach-athlete relationship and burnout symptoms among young elite athletes and the role of mental toughness as a moderator. *Sports Psychiatry*. 2024;1-10. <https://doi.org/10.1024/2674-0052/a000071>
222. Maden E, O'Hallarn B. "The game was ruined for me there." Examining the mental health byproducts of the transfer portal and NIL on student-athletes. *J Athlete Development Experience*. 2024;6(2):64-77.
223. Hollabaugh WL, Jeckell AS, Diamond AD. Name, image, and likeness and the health of the young athlete: a call to action for sports medicine providers and the athletic healthcare network. *Sports Health*. 2023;16(2):209-212.
224. Glazer DD. Development and preliminary validation of the injury-psychological readiness to return to sport (I-PRRS) scale. *J Athl Train*. 2009;44(2):185-189.
225. Cohen R & Abrahamson E. Psychology and sports rehabilitation. *Sports Rehabilitation and Injury Prevention*; 2010; Wiley & Sons, Ltd.
226. Sullivan L, Tattersall H, Brown S, Yang J. Social support and post-injury depressive and anxiety symptoms among college-student athletes. *Int J Environ Res Public Health*. 2022;19:6458. <https://doi.org/10.3390/ijerph19116458>
227. Edwards CD. Mental health considerations for athlete removal from play and return to play planning. *Sports Psychiatry*. 2024;3(3):125-139.

228. Clement D, Arvinen-Barrow M, Fetty T. Psychosocial responses during different phases of sport-injury rehabilitation: a qualitative study. *J Athl Train*. 2015;50:95-104.
229. Aron RV, Ravyts SG, Carnahan ND, Bhattiprolu K, et al. Prevalence of depression and anxiety among adults with chronic pain: a systematic review and analysis. *JAMA Network Open*. 2025;8(3):e250268. <https://doi:10.1001/jamanetworkopen.2025.0268>
230. Rogers DL, Tanaka MJ, Cosgarea AJ, Ginsberg RD, Dreher GM. How mental health affects injury risk and outcomes in athletes. *Sports Health*. 2024 Mar-Apr;16(2):222-229. doi: 10.1177/19417381231179678. Epub 2023 Jun 16. PMID: 37326145; PMCID: PMC10916780.
231. Podlog L, Eklund RC. The psychological aspects of a return to sport following serious injury: a review of the literature from a self-determination perspective. *Psych Sport and Exercise*. 2007;8:535-566.
232. Polenske AD, Meyers MC, Wright HM, Robinson SK, Shuman-Donnelly KM. Coping skills of NCAA division I field athletes. *J Sport Behavior*. 2022;45(3):61-74.
233. Santi G & Pietrantonio L. Psychology of sport injury rehabilitation: a review of models and interventions. *J Human Sport Ex*. 2013;8(4):1029-1044.
234. Shuer ML, Dietrich MS. Psychological effects of chronic injury in elite athletes. *West J Med*. 1997;166(2):104-109.
235. Li H, Moreland JJ, Peek-Asa C, Yang J. Preseason anxiety and depressive symptoms and prospective injury risk in collegiate athletes. *AJSM*. 2017;45(9):2148-2155. doi: [10.1177/0363546517702847](https://doi:10.1177/0363546517702847)
236. Gil-Caselles L, Barquín RR, Egido JMG, Olmedilla-Zafra A. Bidirectional relationship between mental health and sport injuries: A review of reviews. *Apunts Sports Med*. 2024;59(224):100452. doi: [10.1016/j.apunsm.2024.100452](https://doi:10.1016/j.apunsm.2024.100452)
237. Hamstra-Wright KL, Bliven KCH, Coumbe-Lilley JE, Djelovic E, Patel J. The relationship between eating disorders, disordered eating, and injury in athletes: A critically appraised topic. *J Sport Rehabil*. 2023;32(4):474-481. doi: [10.1123/jsr.2022-0370](https://doi:10.1123/jsr.2022-0370)
238. Brewer BW, Redmond CJ. *Psychology of Sport Injury*. Human Kinetics; 2017.
239. Baez SE, Hoch JM, Cormier M. The stress and injury model and cognitive appraisal model: Implications for patients after anterior cruciate ligament reconstruction. *Athl Train Sports Health Care*. 2020;12(4):181-187. doi: [10.3928/19425864-20190924-02](https://doi:10.3928/19425864-20190924-02)
240. Annear A, Sole G, Devan H. What are the current practices of sports physiotherapists in integrating psychological strategies during athletes' return-to-play rehabilitation? Mixed methods systematic review. *Phys Ther Sport*. 2019;38:96-105. doi: [10.1016/j.ptsp.2019.04.018](https://doi:10.1016/j.ptsp.2019.04.018)
241. Fawver B, Larson J, Kim J, Parameswaran UD, Kosbab E. An analysis of mental health service usage and injuries among NCAA Division I collegiate athletes. *J Study Sports Athl*. 2024:1-15. doi: [10.1080/19357397.2024.2321822](https://doi:10.1080/19357397.2024.2321822)
242. Monahan AC. Psychological readiness of athletes to return to play following injury. *Electronic Theses and Dissertations*. 2018;1736. <https://digitalcommons.georgiasouthern.edu/etd/1736>.
243. Tranaeus U, Glendhill A, Johnson U, Podlog L, et al. 50 years of research on the psychology of sport injury: a consensus statement. *Sports Medicine*. 2024;54:1733-1748.
244. Juggath C & Naidoo R. The influence of psychological readiness of athletes when returning to sport after injury. *S African J Sports Med*. 2024;36:1-5.
245. Conti C, diFronso S, Robazza C, Bertollo M. The injury-psychological readiness to return to sport (I-PRRS) scale and the sport confidence inventory (SCI): a cross-cultural validation. *Phys Ther Sport*. 2019;40:218-224.
246. Izzy S, Tahir Z, Grashow R, Cote DJ, et al. Concussion and risk of chronic medical and behavioral health comorbidities. *J Neurotrauma*. 2021;38:1834-1841.
247. Herring S, Kibler WB, Putukian M, et al (2021). Selected issues in sports-related concussion (SRC/mild traumatic brain injury) for the team physician: a consensus statement. *Br J Sports Medicine*. 2021;55:1251-1261.

248. Gouttebarga V & Kerkhoffs GMMJ. Sports career-related concussion and mental health symptoms in former elite athletes. *Neurochirurgie*. 2021;67(3), 280-282.
249. Rice SM, Parker AG, Rosenbaum S, Bailey A, Mawren D, Purcell R. Sports-related concussion and mental health outcomes in elite athletes: a systematic review. *Sports Med*. 2018;48:447-465.
250. Kals M, Wilson L, Levey DF, Parodi L, et al. Genetic vulnerability and adverse mental health outcomes following mild traumatic brain injury: a meta-analysis of CENTER-TBI and TRACK-TBI cohorts. *eClinicalMed*. 2024;78:102956. <https://doi.org/10.1016/j.eclinm.2024.102956>
251. Wingerson M, Mannix R, Carry P, Meier T, Smulligan K, Howell D. 672 F069- Preventing mental illness and suicidality as secondary sequela of sports-related concussion in adolescents. *Br J Sports Med*. 2024;58:A38-A39.
252. Alosco ML, Kasimis AB, Stamm JM, et al. Age of first exposure to American football and long-term neuropsychiatric and cognitive outcomes. *Translational Psychiatry*. 2017;7:1-8.
253. Kerr ZY, Evenson KR, Rosamond WD, et al. Association between concussion and mental health in former collegiate athletes. *Epidemiology*. 2014;1(28):1-10.
254. Knell G, Burkhart SO, Caze TJ, Polousky JD, Kohl HW, Messiah SE. Association between concussion history and factors relating to cognitive, behavioral, and emotional health among American high school athletes: a cross-sectional analysis. *AJSM*. 2020;48(10):2534-2543.
255. Meier TB, Savitz J, Espana LY, Goeckner BD, et al. Association of concussion history with psychiatric symptoms, limbic system structure, and kynurenine pathway metabolites in health, college-aged athletes. *Brain, Behavior, and Immunity*. 2025;123:619-630.
256. Lovette BC, Kanaya MR, Grunberg VA, et al. “Alone in the dark”: a qualitative study of treatment experiences among young adults with a recent concussion and anxiety. *Neuropsychological Rehabilitation*. 2023;27:1-21.
257. Kroenke K, Spitzer RL, Williams JBW. The PHQ-9. *J General Internal Medicine*. 2001;16(9):606-613.
258. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives Internal Medicine*. 2006;166(10):1092–1097.
259. Merikangas KR, Jian-ping H, Burstein, M, et al. Lifetime prevalence of mental disorders in U.S. adolescents: results from the national comorbidity survey replication-adolescent supplement (ncs-a). *J Am. Acad. Child Adolesc. Psychiatry*. 2010;49(10):980-989.
260. Putukian M, Kreher J, Coppel D, Glazer J, McKee D, White R. Attention Hyperactivity Disorder and the athlete: an American Medical Society for Sports Medicine Position Statement. *Clin J Sports Med*. 2011;21:392-401.
261. Project REDs and Kyniska Advocacy, 2023. The Female Athlete Health Report 2023. <https://www.kyniskaadvocacy.com/research/the-female-athlete-health-report-2023>
262. Mountjoy M, Sundgot-Borgen J, Burke L ,et al The IOC consensus statement: beyond the female athlete triad—relative energy deficiency in sport (RED-S). *Br J Sports Med*. 2014;48(7):491–497. doi:10.1136/bjsports-2014-093502.
263. Pierce S, Sangalang M, Kisvari L, Kellar L, Martin E. Supporting collegiate students in the United States through athletic and career transitions. *J Sport Psychology in Action*. 2024;16(1):31-43
264. Erpic SC, Wylleman P, Zupancic M. The effect of athletic and non-athletic factors on the career termination process. *Psychology of Sport Ex*. 2004;5:45-49.
265. Stokowski S, Paule-Koba AL, Kaunert C. Former college athletes’ perceptions of adapting to transition. *JIAA*. 2019;12:403-426.
266. Zimet DM, McDuff DR, Iannone VN, Herzog TP, Moser RP. Retirement from elite sport: Factors associated with adjustment and holistic health outcomes. *Advances Psychiatr Behav Health*. 2023;3(1):69-79. doi: [10.1016/j.ypsc.2023.03.003](https://doi.org/10.1016/j.ypsc.2023.03.003)
267. Voorheis P, Silver M, Consonni J. Adaptation to life after sport for retired athletes: A scoping review of existing reviews and programs. *PloS*

- One. 2023;18(9):e0291683. doi: [10.1371/journal.pone.0291683](https://doi.org/10.1371/journal.pone.0291683)
268. Park S, Lavalley D, Tod D. Athletes' career transition out of sport: A systematic review. *Int Rev Sport Exer P*. 2013;6(1): 22-53. doi: [10.1080/1750984X.2012.687053](https://doi.org/10.1080/1750984X.2012.687053)
269. Grove JR, Lavalley D, Gordon S. Coping with retirement from sport: the influence of athletic identity. *J Applied Sport Psychology*. 1997;9:191-203.
270. Giannone ZA, Haney C, Kealy D, Ogrodniczuk J. Athletic identity and psychiatric symptoms following retirement from varsity sports. *International J Social Psychiatry*. 2017;63(7):598-601.
271. Filbay S, Pandya T, Thomas B, McKay C, Adams J, Arden N. Quality of life and life satisfaction in former athletes: A systematic review and meta-analysis. *Sports Med*. 2019;49(11):1723-1738. doi: [10.1007/s40279-019-01163-0](https://doi.org/10.1007/s40279-019-01163-0)
272. Miller L & Buttell FP. Are NCAA Division I athletes prepared for end-of-athletic-career transition? A literature review. *Journal of Evidence-Informed Social Work*. 2018. [https://doi: 10.1080/23761407.2017.1411305](https://doi.org/10.1080/23761407.2017.1411305).
273. Moore HS, Walton SR, Eckenrod MR, Kossman MK. Biopsychosocial experiences of elite athletes retiring from sport for career-ending injuries: a critically appraised topic. *J Sport Rehabil*. 2022;8(31):1095-1099. doi:10.1123/jsr.2021-0434.
274. Kaul N. Involuntary retirement due to injury in elite athletes from competitive sport: A qualitative analysis. *J Indian Acad Applied Psychology*. 2017;43(2):305-315.
275. Esopenko C, Coury JR, Pieroth EM, Noble JM, Trofa DP, Bottiglieri TS. The psychological burden of retirement from sport. *Cur Sports Med Report*. 2020;19(10):430-437.
276. Taylor J & Ogilvie BC. A conceptual model of adaptation to retirement among athletes. *J Applied Sport Psychology*. 1994;6:1-20.
277. Blinde EM, Stratta TM. The "sport career death" of college athletes: Involuntary and unanticipated sport exits. *J Sport Behav*. 1992;15:3-20.
278. Schlossberg NK. The Transition Process. In: Overwhelmed: Coping With Life's Ups and Downs. Lexington Books; 1989:3-12.
279. Alfermann D, Stambulova N, Zemaityte A. Reactions to sport career termination: A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychol Sport Exerc*. 2004;5(1):61-75.
280. Lally P. Identity and athletic retirement: a prospective study. *Psychol Sport Exerc*. 2007;8:85-99.
281. Pearson RE, Petitpas AJ. Transitions of athletes: Developmental and preventative perspectives. *J Couns Dev*. 1990;69:7-10.
282. Kleiber D, Brock SC. The effect of career-ending injuries on the subsequent well-being of elite college athletes. *Sociology Sport J*. 1992;9:70-75.
283. Kleiber DA, Greendorfer SL, Blinde EM, et al. Quality of exit from university sports and life satisfaction in early adulthood. *Sociology Sport J*. 1987;4:28-36.
284. Isreal J & Bondoc E. The kids are not alright: student athletes and the impact of legalized betting on college sports. *Sports Business Journal*. April 3, 2024.
285. Lesieur HR & Rosenthal RJ. Pathological gambling: a review of the literature. Prepared for the American Psychiatric Association task force on DSM-IV committee on disorders of impulse control not elsewhere classified. *J Gambling Studies*. 1991;7(1):5-39.
286. Moreira D, Azeredo A, Dias P. Risk factors for gambling disorder: a systematic review. *J Gambling Studies*. 2023;39:483-511.
287. St-Pierre RA, Temcheff CE, Gupta R, Derevensky J, Paskus TS. Predicting gambling problems from gambling outcome expectancies in college student-athletes. *J Gambling Studies*. 2013. Published online. <https://doi.org/10.1007/s10899-012-9355-4>
288. Richard J, Paskus TS, Derevensky JL. Trends in gambling behavior among college students-athletes: a comparison of 2004, 2008, 2012, and 2016 NCAA survey data. *J Gambling Issues*. 2019;41:73-99.
289. Mathner RP, Martin CLL, Carroll MS, Neal T. Extending sports wagering studies outside of the student-athlete population: NCAA division I athletic trainers' gambling behaviors. *JIAA*. 2014;7:431-444.
290. Nelson TF, Labrie RA, LaPlante DA, Stanton M, Shaffer HJ, Wechsler H. Sports betting and other gambling in athletes, fans, and other college students. *Research Quart Exercise & Sport*. 2007;8(4):271-283.
291. Nelson SE, Slabczynski JM, Lee TG, LaPlante DA. All in: a scoping review of the association between

- gambling and athletic participation. *Inter Gambling Studies*. 2024;24(2):185-209.
292. Grubbs JB, Connolly AJ, Graupensperger S, Kim HS, Kraus SW. Sports gambling and drinking behaviors over time. *JAMA Psychiatry*. Published online March 05, 2025. doi:10.1001/jamapsychiatry.2025.0024.
293. Kroshus E, Coakley S, Conway D, et al. Addressing mental health needs of NCAA student-athletes of colour: foundational concepts from the NCAA Summit on Diverse Student-Athlete Mental Health and Well-Being. *BJSM*. 2023;57:137-145.
294. Cohen-Young J. A systematic literature review of mental health assessment measures for college athletes: analyzing rigor of empirical validation and implications for practice. *Sport Social Work J*. 2024;6:77-100.
295. Conley KM, Bolin DJ, Carek PJ, Konin JG, Neal TL, Violette D. National Athletic Trainers' Association position statement: pre-participation physical examinations and disqualifying conditions. *J Athl Train*. 2014;49(1):102-120.
296. Donohue B, Scott J, Goodwin G, et al. Initial examination of the mental health disorders: screening instrument for athletes. *Front Psychol*. 2023;14:1029229. <https://doi.org/10.3389/fpsyg.2023.1029229>
297. Gouttebauge V, Bindra A, Blauwet, Campriani N, et al. International Olympic Committee (IOC) sport mental health assessment tool 1 (SMHAT-1) and sport mental health recognition tool 1 (SMHRT-1): towards better support of athlete's mental health. *BJSM*. 2021;55:30-37.
298. Vogel DL, Wade NG, Hackler AH. Perceived public stigma and the willingness to seek counseling: the mediating roles of self-stigma and attitudes towards counseling. *Journal of Counseling Psychology*. 2007;54(1):40-50.
299. Vogel DL, Wester SR. To seek help or not to seek help: the risks of self-disclosure. *Journal of Counseling Psychology*. 2003;50(3):351-361.
300. Vogel DL, Wester SR, Larson LM, Wade NG. An information-processing model of the decision to seek professional help. *Professional Psychology: Research and Practice*. 2006;37(4): 398-406.
301. Vogel DL, Wade NG, Haake S. Measuring self-stigma associated with seeking psychological help. *Journal of Counseling Psychology*. 2006;53(3):325-337.
302. Neal T. The association of athletic identity on an athlete's self-stigma for seeking psychological help. *Sport Social Work J*. 2025;Advanced Online Publication, 4-30-25. <https://doi.org/10.33043/bxa7r84z>
303. Naghavi M. Global, regional, and national burden of suicide, 1990-2021: a systematic analysis from the Global Burden of Disease. *Lancet Public Health* 2005. February 19, 2025. [https://doi.org/10.1016/S2468-2667\(25\)00006-4](https://doi.org/10.1016/S2468-2667(25)00006-4)
304. Makhija H, Davidson JE, Lee KC. National incidence of physician suicide and associated features. *JAMA Psychiatry*. Published online February 26, 2025. <https://doi.org/10.1001/jamapsychiatry.2024.4816>
305. Curtin SC, Garnett MF, & Ahmad FB. Provision estimates of suicide by demographic characteristics: United States, 2022. *Vital Statistics Rapid Release*. 2023;no.34. DOI: <https://doi.org/10.15620/cdc:133702>
306. Center for Disease Control and Prevention. WISQARS™-web-based injury statistics query and reporting system. 2023. Available: <https://www.cdc.gov/injury/wisqars/index.html>
307. Stone DM, Mack KA, Qualters J. Notes from the field: recent changes in suicide rates, by race and ethnicity and age group-United States, 2021. *Morbidity and Mortality Weekly Report (MMWR)*. 2023;72(6):160-162. <https://dx.doi.org/10.15585/mmwr.mm7206a4>
308. Ruch DA, Horowitz LM, Hughes JL, Sarlisian K, et al. Suicide in US preteens aged 8 to 12 years, 2001 to 2022. *JAMA Network Open*. 2024;7(7):e2424664. <https://doi.org/10.1001/jamanetworkopen.202424664>
309. Whelan BM, Kliethermes SA, Scloredt KA, et al. Suicide in National Collegiate Athletic Association athletes: a 20-year analysis. *Br J Sports Med*. 2024;58:531-537.
310. Chang CJ, Putukian M, Aerni G, et al. American Medical society for sports medicine position statement: mental health issues and psychological factors in athletes: detection, management, effect on performance, and prevention-executive summary. *Clin J Sport Med*. 2020;30:91-5.
311. Muronaga M, Terao T, Hirakawa H, Kawano N, et al. Nightcap and suicidal ideation: a cross-sectional survey of lifestyle habits. *Academia Mental Health and Well-being*. 2024;1(2). <https://doi.org/10.20935/MHealthWellB7289>

312. Posner K, Brown GK, Stanley B, Yershova KV, et al. The Columbia-Suicide Severity Rating Scale: initial validity and internal consistency findings from three multisite studies with adolescents and adults. *Am J Psychiatry*. 2011;168(12):1266-1277.
313. Bjureberg J, Dahlin M, Carlborg A, Edberg H, et al. Columbia-Suicide Severity Rating Scale screen version: initial screening for suicide risk in a psychiatric emergency department. *Psychological Medicine*. 2022;52:3904-3912.
314. Interian A, Chesin M, Kline A, Miller R, et al. Use of the Columbia-Suicide Severity Rating Scale (C-SSRS) to classify suicidal behaviors. *Archives of Suicide Research*. 2017;0:1-17.
315. Quinnett PG. The certified QPR pathfinder training program: a description of a novel public health gatekeeper training program to mitigate suicidal ideation and suicide deaths. *J Prevention*. 2023;44:813-824.
316. Aldrich RS, Wilde J, Miller E. The effectiveness of QPR suicide prevention training. *Health Ed J*. 2018;77(8):964-977.
317. Litteken C & Sale E. Long-term effectiveness of the Question, Persuade, Refer (QPR) suicide prevention gatekeeper training program: lessons from Missouri. *Community Mental Health*. 2018;54:282-292.
318. Tal Young I, Iglewicz A, Glorioso D, Lanouette N, et al. Suicide bereavement and complicated grief. *Dialogues Clin Neuroscience*. 2012;14(2):177-186.
319. Chakraborty S, Halder S. Psychological sequela in suicide survivors. *Indian J Soc Psychiatry*. 2018;34:105-110.
320. Levi-Belz Y & Lev-Ari L. "Let's talk about it": the moderating role of self-disclosure on complicated grief over time among suicide survivors. *Inter J Environmental Research and Public Health*. 2019;16:3740. <https://doi.org/10.3390/ijerph16193740>
321. Sakinofsky I. The aftermath of suicide: managing survivor's bereavement. *Canadian J Psychiatry*. 2007;52(1):129S-136S.
322. ATs Care Peer-to-Peer Support Program. National Athletic Trainers' Association. <https://www.nata.org/membership/about-membership/member-resources/ats-care>
323. American Medical Association. Code of Ethics (1.2.5 Sports Medicine). Nd. <https://code-medical-ethics.ama-assn.org/ethics-opinions/sports-medicine>
324. Neal T. Athletic training excellence starts with ethics. *Athl Train & Sports Health Care*. 2019;13(2):56-59.
325. Neal T. Ethical issues in concussion management. *IJATT*. 2017;22(1):24-32.
326. National Athletic Trainers' Association Code of Ethics. Revised 2022. Accessed February 1, 2025. https://www.nata.org/sites/default/files/nata_code_of_ethics_2022.pdf
327. American Psychological Association. 2016. Ethical Principles of Psychologists and Code of Conduct (Principle A: Beneficence and Nonmaleficence). 2016. Accessed April 27, 2025. <https://www.apa.org/ethics/code/index.aspx>.
328. National Association of Social Workers. Code of ethics of the National Association of Social Workers. Revised 2021. Accessed February 2, 2025. <https://www.socialworkers.org/About/Ethics/Code-of-Ethics/>
329. American Counseling Association. Code of Ethics (Preamble). 2014. Accessed April 27, 2025. <https://www.counseling.org/resources/ethics>
330. American Association for Marriage and Family Therapy. Code of Ethics (Preamble). 2015. Accessed April 27, 2025. https://www.aamft.org/AAMFT/Legal_Ethics/Code_of_Ethics.aspx
331. Schlabach GA. Professional values: cultivating the social contract with the seeds of professionalism. *IJATT*. 2017;22(1):11-18.
332. Peer KS. Ethics in sports medicine: perspectives on fulfilling the social contract between health care providers and society. *IJATT*. 2017;22(1):1-4.
333. Ardito RB & Rabellino D. Therapeutic alliance and outcome of psychotherapy: historical excursus, measurements, and prospects for research. *Frontiers in Psych*. 2011;2(article 270). <https://www.doi.org/10.3389/fpsyg.2011.00270>.
334. Vasquez MJT. Cultural difference and the therapeutic alliance: an evidence-based analysis. *American Psychologist*. 2007; 62(8), 878-885. <https://doi.org/10.1037/0003-066X.62.8.878>

335. Bachelor A. Clients' and therapists' view of the therapeutic alliance: similarities, differences, and relationship to therapy outcomes. *Cl Psychol & Psychotherapy*. 2011;20(2):118-135.
336. Rasmussen B. A critical examination of CBT in clinical social work practice. *Clin Soc Work*. 2018;46:165-173.
337. Denver R. Calm is contagious: can you keep your cool when your team is decision-making under stress? Leadership Website. <https://now.leadercast.com/programs/calm-is-contagious>. Published 2019. Accessed December 22, 2024.
338. NCAA Guideline 2o, Mental Health: Interventions for Intercollegiate Athletics. 2012-2013 NCAA Sports Medicine Handbook; NCAA.org/health-safety.
339. Neal TL. Recognizing the signs. *Training and Conditioning*. 2012;23(3):36-43.
340. Neal TL. Game Changers: Mental-health issues can impair a student-athlete's performance, so support is critical. *Advance for Physical Therapy and Rehab Medicine*. 2010;21:32-33.
341. Schwenk TL. The stigmatization and denial of mental health illness in athletes. *BJSM*. 2000;34(1):4-5.
342. Pinkerton RS, Hinz LD, Barrow JC. The college student-athlete: psychological considerations and interventions. *J of ACH*. 1989;37(5):218-226.
343. Silent Lucidity. Queensryche. 1991.
344. Khosravi M, Azar G, Izadi R. Principles and elements of patient-centeredness in mental health services: a thematic analysis of systematic review of reviews. *BMJ Open Quality*. 2024;13:e002719. Doi:10.1136/bmjopen-2023-002719.
345. Goodger K, Gorely T, Lavalley D, Harwood C. Burnout in Sport: A Systematic Review. *The Sport Psychologist*. 01 Jun. 2007 2007;21(2):127-151. doi:10.1123/tsp.21.2.127.
346. Mazerolle SM, Pitney WA, Goodman A, et al. National Athletic Trainers' Association Position Statement: Facilitating Work-Life Balance in Athletic Training Practice Settings. *J Athl Train*. Aug 2018;53(8):796-811. doi:10.4085/1062-6050-51.11.02.
347. Pilkington V, Rice SM, Walton CC, et al. Prevalence and Correlates of Mental Health Symptoms and Well-Being Among Elite Sport Coaches and High-Performance Support Staff. *Sports Med Open*. Jul 06 2022;8(1):89. doi:10.1186/s40798-022-00479-y.
348. Walker HK, Hall WD, Hurst JW, editors. *Clinical Methods: The History, Physical, and Laboratory Examinations*. 3rd ed. Chapter 207. Butterworths; 1990.
349. Voss RM, Das JM. Mental status examination. [Updated 2024 Apr 30]. In: StatPearls [Internet]. StatPearls Publishing; 2025. <https://www.ncbi.nlm.nih.gov/books/NBK546682/>
350. Bandura A. Social foundations of thought and action : a social cognitive theory. Prentice-Hall series in social learning theory. Prentice-Hall; 1986:xiii, 617 p.
351. Beasley L, Hardin R, Palumbo DJ. Athletic trainers' perceptions of their role in the mental health care of student-athletes. *JIAA*. 2022;15(1):9.
352. Lobelo F, de Quevedo IG. The Evidence in Support of Physicians and Health Care Providers as Physical Activity Role Models. *Am J Lifestyle Med*. Jan 2016;10(1):36-52. doi:10.1177/1559827613520120.
353. Oglesby LW, Gallucci AR, Wynveen CJ. Athletic Trainer Burnout: A Systematic Review of the Literature. *J Athl Train*. Apr 2020;55(4):416-430. doi:10.4085/1062-6050-43-19.
354. Tan TY, Wachsmuth L, Tugade MM. Emotional Nuance: Examining Positive Emotional Granularity and Well-Being. *Front Psychol*. 2022;13:715966. doi:10.3389/fpsyg.2022.715966.
355. Mazerolle SM, Pitney WA, Goodman A, et al. National Athletic Trainers' Association Position Statement: Facilitating Work-Life Balance in Athletic Training Practice Settings. *J Athl Train*. Aug 2018;53(8):796-811. doi:10.4085/1062-6050-51.11.02.
356. Henriksen K, Schinke R, Moesch K, et al. Consensus statement on improving the mental health of high-performance athletes. *International Journal of Sport and Exercise Psychology*. 2020/09/02 2020;18(5):553-560. doi:10.1080/1612197X.2019.1570473.
357. Selden J. Table-talk. 1689. A. Constable and Company; 1895.
358. Gallup Poll. Most Americans Want Doctors to Ask About Mental Health. November 21, 2024. Gallup <https://news.gallup.com/poll/653300/americans-doc-tors-ask-mental-health.aspx>

359. CDC National Center for Health Statistics. FastStats Mental Health. <https://www.cdc.gov/nchs/fastats/mental-health.htm>.
360. Comparing the mental well-being of student-athletes and other students at NCAA colleges. NCAA Research. 2020. https://ncaaorg.s3.amazonaws.com/research/other/2020/2022RES_SA-SB-MH-Comparison-Data-ACHA-FINAL.pdf
361. Herring S, Kibler W, Putukian M, et al. Psychological issues related to illness and injury in athletes and the team physician-2016 update. *Med Sci Sports Exerc*. 2017;49(5):1043-54.
362. Mann BJ, Grana WA, Indelicato PA, O'Neill DF, George SZ. A survey of sports medicine physicians regarding psychological issues in patient-athletes. *Am J Sports Med*. 2007;35(12):2140-2147.
363. National Collegiate Athletic Association. Mental Health Best Practices: Understanding and Supporting Student-Athlete Mental Health (2nd ed.). Sport Science Institute; 2024. https://ncaaorg.s3.amazonaws.com/ssi/mental/SSI_MentalHealthBestPractices.pdf
364. Hong E, Keenan L, Putukian M, Scifers JR. Addressing mental health issues in the collegiate student-athlete. *Athletic Train & Sports Health Care*. 2018;10(2):54-58. doi:10.3928/19425864-20180219-01.
365. Roberts SD, Champigny C, Feldman SJ, Flora DB, Wojtowicz M. Screening for anxiety and depression symptoms using concussion symptom scales among varsity athletes. *Clin J Sport Med*. 2024 Mar 1;34(2):105-111. doi: 10.1097/JSM.0000000000001181. Epub 2023 Aug 16. PMID: 37584442.
366. American College of Sports Medicine. Psychological Issues Related to Injury in Athletes and the Team Physician: A Consensus Statement. *Med Sci Sports Exerc*. 2006;38(11):2030-2034.
367. Herring S, Putukian M, Kilber WB, et al. Team physician consensus statement: return to sport/return to play and the team physician: a team physician consensus statement-2023 update. *Med Sci Sports Exerc*. 2024;23(5):183-191.
368. Caroff SN, Watson CB, Rosenberg H. Drug-induced hyperthermic syndromes in psychiatry. *Clin Pharm & Neuroscience*. 2021;19(1):1-11.
369. Hermesh H, Shiloh R, Epstein Y, Manaim H, Weizman A, Munitz H. Heat intolerance in patients with chronic schizophrenia maintained with antipsychotic drugs. *Am J Psychiatry*. 2000;157(8):1327-1329.
370. Aguglia A, Serafini G, Escelsior A, Canepa G, Amore M, Maina G. Maximum temperature and solar radiation as predictors of bipolar patient admission in an emergency psychiatric ward. *Int J Environ Res Public Health*. 2019;16:1140. <https://doi.org/10.3390/ijerph16071140>
371. Mujkanovi J, Warming PE, Kessing LV, Kober LV, et al. Nationwide burden of sudden cardiac death among patients with a psychiatric disorder. *Heart*. 2024;110(23):1365-1371. doi: 10.1136/heartjnl-2024-324092. PMID: 39438152.
372. Watson JC. College student-athletes' attitudes toward help-seeking behavior and expectations of counseling. *Journal of College Student Development*. 2005;46(4):442-449.
373. Brewer BW, Van Raalte JL, Petipas AJ, Bachman AD, Weithold RA. Newspaper portrayals of sports psychology in the United State, 1985-1993. *The Sport Psychologist*. 1998;12(1):89-94.
374. Etzel EF, Pinkney JW, Hinkle JS. College student-athletes and needs assessment. In: Thomas CC(Ed). 1994. Multicultural needs assessment for college and university student populations. Springfield, IL: C. C. Thomas.
375. Baird, BN. 2007. The internship, practicum, and field placement handbook. A guide for the helping professions (5th Ed.). New Jersey: Pearson Education Inc.
376. Kliegman J. College athletes are only starting to get access to the mental health care they need. The Ringer. October 26, 2017. <https://www.theringer.com/2017/10/26/16535274/ncaa-student-athletes-mental-health-care-initiatives>
377. Purcell R, Gwyther K, Rice SM. Mental health in elite athletes: Increased awareness requires an early intervention framework to respond to athlete needs. *Sports Medicine-Open*. 2019;5:46. <https://doi.org/10.1186/s40798-019-0220-1>
378. Moore M. Stepping outside of their comfort zone: Perceptions of seeking behavioral health services amongst college athletes. *JIIA*.2017;130-144. https://crsi-jiaa.org/wp-content/uploads/2017/07/JIIA_2017_SI_08.pdf

379. Lopez RL, Levy JJ. Student athletes' perceived barriers to and preferences for seeking counseling. *Journal of College Counseling*. 2013;16(1):19-31. <https://doi.org/10.1002/j.2161-1882.2013.00024.x>
380. Melick A, Russ A, Tierney RT, Mansell JL. The effect of collaborative patient simulation in health education students: a critically appraised topic. *Common Health*. 2024;5(1):9-15.
381. Drescher MJ, Mills G, Winkelmann ZK, Games KE. Collaborative mental health care in collegiate athletics: behavioral health providers perceived role of the athletic trainer. *J Athl Train*. 2023;58(10):855-864.
382. NCAA Inter-Association Consensus Document: Mental Health Best Practices, Understanding and Supporting Student-Athlete Mental Wellness. 2020; NCAA. <https://www.ncaa.org/sports/2016/5/2/men-tal-health-best-practices.aspx>
383. Lawrence NM & Gunter K. Considerations for developing a mental health emergency action plan for high school football programs and athletic departments. *The Musculoskeletal Journal for Hospital for Special Surgery*. 2023;19(3): 373-380. doi: 10.1177/15563316221141884.
384. Bonanno GA. Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *Am Psychol*. 2004;59(1):20-28.
385. Everly, Jr. GS, Welzant V, Jacobson JM. Resistance and resilience: the final frontier in traumatic stress management. *International Journal of Emergency Mental Health*. 2008;10(4):261-270.
386. Hirschhorn RM, Kerr ZY, Wasserman EB, Kay MC, Clifton DR, Dompier TP, Yergin SW. Epidemiology of injuries requiring emergency transport among collegiate and high school student-athletes. *J Athl Train*. 2018;53(9):906-914.
387. Hobfoll S, Watson P, Bell C, Bryant R, Brymer M, Friedan M, et al. Five essential elements of immediate and mid-term mass trauma intervention: empirical evidence. *Psychiatry*. 2007;(4):283-315.
388. Everly, Jr. GS & Mitchell JT. Integrative crisis intervention and disaster mental health. 2008; International Critical Incident Stress Foundation.
389. Everly, Jr. GS, Flynn BW. Principles and practical procedures for acute psychological first aid training for personnel without mental health experience. *International Journal of Emergency Mental Health*. 2006;8(2):93-100.
390. Everly, Jr. GS, Lating JM, Sherman MF, Goncher I. The potential efficacy of psychological first aid on self-reported anxiety and mood: a pilot study. *The Journal of Nervous and Mental Disease*. 2006;204(3):233-235.
391. Everly, Jr. GS & Lating JM. The Johns Hopkins guide to psychological first Aid. 2nd Edition. 2022; Balto: JHU Press.
392. Everly, Jr. GS & Lating, JM (in press). The Johns Hopkins guide to everyday psychological first Aid. Nd; Balto: JHU Press.
393. Everly, Jr. G & Mitchell JT. Critical incident stress management (CISM). 1999; International Critical Incident Stress Foundation.
394. Kaminsky M, McCabe OL, Langlieb AM, Everly, Jr. GS. An evidence-informed model of human resistance, resilience, and recovery: The Johns Hopkins' outcome-driven paradigm for disaster mental health services. *Brief Treatment and Crisis Intervention*. 2007;7(1):1-11.
395. Guideline 1F: Catastrophic Incident in Athletics. 2014 NCAA Sports Medicine Handbook. National Collegiate Athletic Association; 2014.
396. Applied Suicide Intervention Skills Training (ASIST), n.d., LivingWorks Education.
397. Kitchener BA, & Jorm AF. Mental health first aid training for the public: evaluation of effects on knowledge, attitudes and helping behavior, *BMC Psychiatry*. 2002;2(1):10. <https://doi.org/10.1186/1471-244X-2-10>
398. Mishkind MC, Yannacone A, Lopez A, Jortberg BT, Sherrill A, Mescher T. Virtual versus in-person suicide prevention training in the workplace: evaluation of the VitalCog Program. *J Technol Behav Sci*. 2023 Jan 30:1-8.
399. Van Atta AA. Quiet crisis in college sports. The Johns Hopkins News-Letter. 2022, September 8, Retrieved from <https://www.jhunewsletter.com/article/2022/09/a-quiet-crisis-in-college-sports>.
400. Sudano LE, Collins CL, Comstock RD. Mental health services in NCAA division I athletics: a survey of head ATCs. *Sports Health*. 2017;9(3):262-267.

401. Milin R, Kutcher S, Lewis SP, Walker S, Wei Y, Ferrill N, Armstrong MA. Impact of a mental health curriculum on knowledge and stigma among high school students: a randomized controlled trial. *Journal of the American Academy of Child & Adolescent Psychiatry*. 2016;55(5):383–391.

402. National Collegiate Athletic Association. Tackling Stigma: A Pilot Program to Promote Mental Health Literacy and Help-Seeking in Student-Athletes. NCAA. 2019. Retrieved from <https://www.ncaa.org/sports/2019/2/1/tackling-stigma-a-pilot-program-to-promote-mental-health-literacy-and-help-seeking-in-student-athletes.aspx>

403. Mental Health Commission of Canada, Mental Health First Aid: An Evidence Review. 2010.

404. American College of Sports Medicine, Supporting athlete mental health, ACSM. (2022, February 9), Retrieved from <https://www.acsm.org/blog-detail/acsm-blog/2022/02/09/supporting-athlete-mental-health>

405. The Association for Applied Sport Psychology, Mentally Preparing Athletes to Return to Play Following Injury. Retrieved from n.d., <https://appliedsportpsych.org/resources/injury-rehabilitation/mentally-preparing-athletes-to-return-to-play-following-injury/>.

406. Karayel E, Adiloğulları İ, Şenel E. The role of transformational leadership in the associations between coach-athlete relationship and team resilience: a study on elite football players. *BMC Psychology*. 2024;

Table 13

National Organizations Endorsing the NATA 2026 Updated Consensus Statement: Developing a Plan to Recognize and Refer Student-Athletes for Psychological Concerns at the Collegiate Level National Athletic Trainers’ Association Association for Applied Sport Psychology Alliance of Social Workers in Sport Clinical/Counseling Sport Psychology Association International Critical Incident Stress Foundation
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