

Review Article

Sports Psychiatry: The Mental Health Needs of the College Athlete

Ryan Mast, Julie P Gentile*

Wright State University, Dayton, OH, USA

***Corresponding Author:** Julie P Gentile, Wright State University, Dayton, OH, USA, E-mail: julie.gentile@wright.edu

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Abstract

Although young adulthood is often characterized by social and intellectual development and multiple transitions, college-aged individuals are also routinely exposed to situations that place them at high risk of mental health disorders. For college student-athletes, the pressures of academics, paired with the demands of a college athletic program, certainly have the potential to increase the risk of psychiatric conditions. This article will assist the clinician in understanding the unique challenges faced by the college athlete, recognize the importance of screening college athletes for mental health concerns, and appreciate unique treatment considerations.

Keywords: College athlete; Psychiatric treatment; College mental health; Transition age; Depression; Anxiety; Eating disorder

1. Introduction

Although young adulthood is often characterized by social and intellectual development and multiple transitions, college-aged individuals are also routinely exposed to situations that place them at high risk of mental health disorders. For college student-athletes, the pressures of academics, paired with the demands of a college athletic program, certainly have the potential to increase the risk of psychiatric conditions. This article will assist the clinician in understanding the unique challenges faced by the college athlete, recognize the importance of screening college athletes for mental health concerns, and appreciate unique treatment considerations. According to the National Collegiate Athletic Association (NCAA), there are approximately 460,000 college student-athletes in the United States participating in 24 sports at more than 1,000 member institutions. These 460,000 high-achieving student-athletes aim to reach the pinnacle of health and fitness, and yet they are not immune to physical ailments and mental illness, and so there is a need for providers who are trained in the care of the student-athlete.

Anxiety disorders, depressive disorders, substance use disorders, and eating disorders are not uncommon in this population. Whether or not you treat a student-athlete in your practice, many of their struggles and challenges are not dissimilar to other patients in this age group. In particular, other young adults (including all undergraduates, military recruits, etc.) struggle with identity and with striking the right work-life balance. Many demands (both internal and external) are placed on all individuals in this age category, but demands are often greater for the highest-achievers (e.g. student-athletes, graduate students, and medical students), and this places them all in a high-risk category for developing depression and anxiety. People in this age range commonly reflect on and struggle with identity. Existential crisis is a stage of development at which an individual questions the foundation of his or her life. The question of life's meaning, purpose, or value is at the center of this landmark. When college-age youth encounter this on their journey, they may experience loneliness, alienation, and stress. Youth may become engulfed in the crisis of existentialism and the unpredictability of the future. These issues should be explored in any treatment relationship. Even if your practice does not include college-age youth, it is likely that you provide care for adults whose children are in this age group, and so knowledge in this area will be valuable.

2. Importance of College Athlete Mental Health

Suicide is the 4th leading cause of death among college athletes. Between 2003 and 2012, suicide accounted for 7.3% of all college-athlete deaths with a total of 35 suicide completions. During that time, male college athletes were significantly more likely to complete suicide than female athletes (29 of the 35 suicide completions were by males), and male college football players had the highest suicide rate of all college athletes. While it is exceedingly important to screen college student-athletes for suicide risk, it should also be noted that playing college sports may be somewhat protective against suicide (the incidence of suicide for college athletes is less than that of college non-athletes and also less than that of non-college same age peers). Possible reasons for reduced suicide risk in college athletes may include: better social connectivity, the antidepressant effects of exercise, possible less substance use (since athletes are drug-tested), and an improved sense of accomplishment. For this reason, when a student-athlete stops being an athlete (either due to injury, loss of scholarship, or any other reason), they may be at an increased risk for depression, anxiety, and suicidality.

The NCAA is particularly concerned with both the physical and mental well-being of athletes, and for that reason the NCAA has published documents for the treatment of injuries (including concussion protocols). Physical injuries can certainly have psychological consequences, and vice versa: psychiatric conditions, including depression, anxiety, and eating disorders can affect physical health, and therefore athletic performance. The mind-body connection is especially highlighted in the area of concussions where common sequela of this physical injury includes mental illness that may follow (e.g. depression, anxiety). The importance of screening anyone post-concussion for depression and suicidal ideation should not be understated. Special attention is also being paid to the time required to heal from injuries. Athletes are often surprised to learn of the very variable amount of time that is sometimes required to recover from a concussion. For the athlete (and perhaps for coaches and parents), 'when can an athlete return to competition?' may be a different question than 'when should an athlete return?'

An additional consideration in the evaluation of athletes is the “Female Athlete Triad.” The NCAA has created documents regarding this triad that consists of the following three inter-related conditions: energy deficiency with or without disordered eating, menstrual disturbances/amenorrhea, and bone loss/osteoporosis. The NCAA is also addressing the balance of athletics, academics, and social growth. The NCAA has identified that student-athletes have been dedicating too much time to athletics. As a result, the NCAA has put time limits in place for the number of hours per week for athletics, and there are sanctions against schools that violate those limits. This may be viewed as a parallel to the hour limitations that the Liaison Committee on Medical Education (LCME) and the Accreditation Council for Graduate Medical Education (ACGME) have put in place for medical students and residents. Time limits aim to safeguard against burnout and improve safety. The young are sometimes very energetic and are eager to please, and this includes athletes who we need to keep safe. Aristotle had said, “Beauty varies with each age. In a young man, it consists in possessing a body capable of enduring all efforts, either of the racecourse or of bodily strength...” It is the role of governing bodies and physicians to recommend time limits and to prescribe the appropriate amount of time to heal. We need to help them achieve what Aristotle then described as: “A happy old age is one that comes slowly with freedom from pain [1-4].”

3. An Eriksonian Walk Through College Athletics

Each stage of life may be viewed in terms of mastery of a new skill set. Mastery starts with learning simple skills and building on them. Even elite athletes started from humble beginnings: holding a ball without dropping it. In general, you learn to crawl, then walk, then ride a tricycle, then a bicycle, and then drive a car. Gross motor, timing, balance, and fine motor improves during childhood, and mastery is built on the previous accomplishments. How do you master a task? Practice makes for mastery. According to Aristotle: “Excellence is an art won by training and habituation”. “We are what we repeatedly do. Excellence, therefore, is not an act, but a habit.” The ancient Greek philosophers often reflected on both mental and physical pursuits. Mastery of a sport may well begin as a childish pursuit (since play is the work of childhood after all), but sports should not solely be for children. Socrates stated, “No man has the right to be an amateur in the matter of physical training. It is a shame for a man to grow old without seeing the beauty and strength of which his body is capable.” Socrates might therefore be interested to know of the modern value placed on athletics, and the rewards that the mastery of certain sports can bring.

Many athletes are better compensated than every non-athlete on the planet (including doctors and modern philosophers), but Socrates might be most interested in those individuals who combine a love for both intellectual and athletic pursuits. Sport is certainly a serious philosophical business, and modern philosopher-athletes (Bruce Lee, Yogi Berra, Phil Jackson, Muhammad Ali) have shaped both sport and culture. Additionally, experiences playing sports during childhood have shaped the lives of CEOs, physicians, engineers, and teachers. In short, the positive lessons learned in play and sport are the foundations upon which a just society can be built. Athletes can certainly become extremely interested in both psychology and philosophy, and during moments of self-reflection, all athletes must have an eye toward their post-athletics life. The lessons learned during athletics can translate well to careers in leadership roles. Much of success in business is: the ability to lead, the ability to follow, and the wisdom to know when each is more appropriate [5-7].

4. A Case of a Promising Beginning and a Promising End

Jenna is one of the 460,000 college student-athletes, and she is no longer sure quite who she is. “How many concussions is too many?” Jenna asks, but she answers the question herself, “One. One is too many. I know that now, but I didn’t before. I thought that I was invincible when I was younger, and then I got my first concussion. When it happened, I didn’t even know that I had a concussion. In fact, I didn’t even know what a concussion was. I was in 7th grade and I ran into the goalpost when I was diving for the ball as the goalie. I saw stars.” She ponders that thought for a moment, and then she snaps back into the room. “What was I talking about?” She pauses with a furrowed brow trying to trace her stream of conscientiousness back to the main point. “Oh yeah. I hit the goal post, saw stars, and I was really embarrassed. They told me that I was tough, and they had me sit out for the rest of practice. Two days later I played in a game with two black eyes.”

“The next concussion was probably when I was dropped while cheerleading. I have seen the video of it one time, and watching it once was enough. The sound of my head hitting the basketball court floor silenced the crowd. Loud boom, then silence.” Jenna winces while recalling it. “I can’t remember anything from the game at all. The next thing that I remember was being in the emergency room. I remember the doctor told me that soccer and cheerleading are two of the best ways to get a concussion. So, I quit cheerleading.”

Jenna adds, “After the cheerleading concussion, it became a lot easier to get concussions. Thrown from a horse: concussion. Minor car accident: concussion. Slip in the shower: concussion. Some were worse than others. Sometimes I told my parents about it, and sometimes I didn’t.”

“As a sophomore in high school, I became a more calculated soccer player because I still wanted and needed a scholarship. I took fewer risks in life. Ride a bike; wear a helmet. No diving at the pool, no more horseback riding. And it worked. No concussions from that point until college. Then I get to college, and sophomore year I get one playing a game in the dorm, and two weeks later I got another one during a soccer game by just going up for a header. That was three months ago. I haven’t played since then, and I’m probably going to quit soccer forever. I hope that that puts an end to my concussions, but if I do quit soccer, then how am I going to pay for college? I can’t get a job right now because I can barely keep it together for class. Maybe I should take some time off of school anyway.”

She glances at the paper that she has been reading from that has bullet points on it. “I wrote down notes because there is no way that I was going to remember to say all of this, but it all needs to be said.” She pauses and then starts again. “After the last concussion, a lot of things changed for me. I have frequent headaches, so I now see a neurologist. The headache medicine helps, but my concentration is terrible. So, I started seeing a therapist, and it helps my anxiety, but concentration is still terrible. I had to drop all but three of my classes, and I’m not doing well in those classes. This is not who I used to be. In high school I was the best soccer player in my school and city, and I

was a straight-A student. Now, I'm neither of those things. So, who am I? Who do I become? How do I get there? I don't know who I am, but I do know that I'm depressed and anxious, and I can't sleep. I'm miserable."

"I put a lot of things in my life on pause in the pursuit of soccer. I have never worked. I have never dated. I couldn't drink alcohol because I did not want to get kicked off of the team, but also because my body is a finely tuned machine, and I need to be careful about what fuel I put into the machine. I was dedicated to school and to soccer. So, if I quit soccer, then I could theoretically date, work, and catch up on the 'college experience', but I feel miserable. How can I date or work or drink if my brain isn't working right? I guess that I'm here seeing you to see if you can help fix my broken brain. Gosh, that sounds terrible."

She turns the page over, "Also, how do I tell my parents and my coach that I want to quit? Could you tell them for me? I hate disappointing people by giving up. I guess that I'm not really giving up; just starting a new chapter. Gosh, there is a lot to think about and it makes my head hurt." She rubs her temples, "I made a 'pros and cons' list about quitting. Health, freedom, and free time are at the top of the pro column."

"Since I've been sidelined with the injury, I've noticed that my knee also feels better, and I had my period for the first time in two years. Oh yeah. I never told anyone about that either. I really want to stop keeping secrets, and most of my secrets have been related to soccer, so I think that I can be a more authentic version of myself if I quit. But who is the authentic me? Who do I want to be now? If I am not an athlete, then who am I?"

Jenna again pauses and rubs her head. "I told my friend that I want to quit, and she said that it's my life to live and not my parents' life. That made me think of one of the quotes that I have on my dorm room wall. You know Pat Summit, right? She's the winningest coach in college basketball. You have to admire someone with over 1,000 wins, so I have a few of her quotes on my wall. One of them is: 'When you learn to keep fighting in the face of potential failure, it gives you a larger skill set to do what you want to do.' To me, it used to mean 'never quit and keep fighting no matter what', but now I think that it means something different to me. It means that I can quit the fight that I no longer want. Quitting soccer will free me up to accomplish something more important to me. In a sense, soccer has better prepared me for every future battle, and I'm ready to move on."

After a few moments of silence Jenna says, "That's it. What do you think? I don't know where to start with medication, but I want to try something to help with anxiety and depression. I'm a wreck right now, and my sleep is terrible. Whenever I lie down to sleep, my mind turns to all of the things left undone and the tasks ahead. Maybe quitting will make me feel immediately better, but I doubt it. It might make some things better and some things worse. It will be a good stress, but still a stress. Sorry, I said that I was done talking. My mind is everywhere."

When it was clear that she had spoken her peace, she was ready to answer the screening questions and more detailed questions. She denied suicidal ideation, homicidal ideation, obsessive compulsive symptoms, mania, sexual activity, illicit drugs, nicotine, and alcohol. She did admit to some symptoms of disordered eating in the past, but denied a

history of purging. It became clear during the evaluation, that symptoms of depression and anxiety had been with her for years.

At that intake appointment, Jenna stated that preferred to try lowest doses and wanted to avoid multiple medications, but she was open to most medications that were “not addictive and not banned by the NCAA in case I change my mind and want to play soccer next year. I like to have back-up plans.”

Her roommate takes Bupropion, and Jenna mentioned that she liked that it is used in the treatment of Major Depressive Disorder (MDD) and that it can help a lot with inattention, but she wanted an agent that could help with a lot with anxiety and sleep too. She also wanted an agent that would not cause a lot of weight gain. “I almost bought Melatonin from the store to help with sleep because it is a natural brain chemical, and I like that, but then I realized that the FDA does not regulate it, and the NCAA says that I’m responsible for anything that I put in my body. So, I decided not to try it because who knows what is actually in it if it’s not regulated by the FDA. I’m sure that it is probably fine, but some things are not worth the risk to me. I would rather just get something prescribed.” She adds, “I know that maybe a stimulant could possibly help, but they are on the NCAA banned substances list, and I do not want to go through the waiver process for it.” Jenna had certainly done a lot of research on medications. She added, “My concentration might not be very good, but I make up for that with desire and drive. I’ve spent a lot of time trying to learn about medicine options.”

Ultimately, Jenna chose the combination of Sertraline and low-dose Trazodone at bedtime, and she did well on this medication regimen and in therapy. She successfully weathered the storm of quitting the team. “It went better than I thought. People just want me to be happy and healthy.” Her post-concussion symptoms eventually resolved, and with her new-found free-time: her grades returned to straight-A’s, she started to date, she studied abroad, volunteered, drank some alcohol (responsibly), and joined an intramural soccer team.

At her last session before college graduation, Jenna stated, “I’m grateful for my time as a soccer player. It prepared me for life, and I’m ready for another new chapter now.” She had decided on graduate school to pursue a career in sports psychology. “I never saw a therapist when I was in high school, so I want to be the therapist that I wish that I had had.”

5. Clinical Pearls for College Athletes

Prevention is much more important than crisis management. In an ideal world, we would screen all high school athletes for physical illness and mental health concerns, and we would educate them all about transitions toward college and life beyond sport. While there are 460,000 college student-athletes, the number of high school athletes is much, much larger, and they all struggle to a certain degree with school-sport-life balance and with issues of identity [8-9]. When preparing high school athletes for a transition to college athletics, some recommendations might include:

- All teens headed to college should be educated about navigating normal ‘phase of life’ tasks.
 - Discuss how they can: manage their increased independence from parents, develop and maintaining new relationships, handle variable schedules, decide who they will be and how they will get there (identity).
- For students headed to college with an already diagnosed mental illness, the creation of a clear and comprehensive transfer of care plan is essential while they are still in high school.
 - Recommend that during college visits that they look at the mental health services available on campus
 - Recommend that they engage with the campus mental health clinic early in the first semester since this often leads to better outcomes.
- Impaired communication between parents and children can impact the adjustment to college life.
 - Remind parents to be available to talk (or just listen) when approached by their teen/young adult.

For the student-athlete and their guardians, psychoeducation can be an important protective measure. Common developmental and ‘phase of life’ challenges should be highlighted with them. This includes that student-athletes often struggle with:

- Work-life balance (academics-athletics-social life)
- Identity development
- Managing both internal and external motivations and pressures
- The notion that play has become a job (and might no longer be fun)
- Injuries (and playing with injuries is not uncommon because the athlete might worry that if they do not play, then they will lose their role as starter on the team)
- Depression, anxiety, substance use disorders, eating disorders, body image issues, insomnia
- Stigma of mental illness (and fear of being perceived as “weak”)
- Stigma regarding identity (many LGBTQ+ athletes worry about how their teammates and opponents will treat them)
- Team dynamics (can affect their mental health)
- Bullying and hazing (approximately 74% of college student-athletes experience at least one form of hazing during college)
- Transition to life after college athletics (loss of identity)

5.1 Mental health screening is recommended for all athletes

- Screen for depression, suicidality, anxiety, insomnia, alcohol and other substance use, eating disorders, hazing, bullying, sexual abuse, physical aggression (20% of male college student-athletes in one study reported having been in a physical fight in the preceding 12 months), and gambling.

5.2 Banned Substances

- SSRIs and most other psychotropic medications are **not** on the NCAA banned substances list.
 - Patients can and should check with the designated official on campus before taking any substance.
- Stimulant medications are on the banned substances list; however, exceptions can be made if they are clinically indicated.
 - There is a *medical exception documentation* form on the NCAA website for stimulant medications.

6. Conclusion

All of life is about mastery and transitions. When faced with challenges, children and adolescents sometimes believe that they are the first person on the planet to have encountered a certain challenge. That can be a very lonely feeling. However, we can alleviate a significant proportion of their anxiety by explaining to them: normal developmental tasks, Eriksonian stages of development, and the shared struggle for identity. However, we would not want to alleviate all anxiety and extinguish all fear since a healthy level of anxiety and healthy fear both drive us and keep us safe. In a sense, each generation faces unique challenges; and each special population (e.g. College student athletes, medical students, first-generation college students, etc.) have their own unique hurdles and obstacles. Yet, there is much overlap in these challenges. Given that prevention is much more important than crisis management, it is important to provide each population with a road map for success that highlights both the easy paths up the mountain and those roads where trouble waits around every bend.

For the college student-athlete, we must appropriately screen for depression, anxiety, and medical ailments. Treatment is indicated in many circumstances. Topics that should be addressed with them include: academics-athletics-life balance, physical and mental health, and post-athletics life. The majority of humans on the planet have played games, sports, and many have played organized sports. The lessons learned in sport prepare us for the challenges of work, parenthood, and life on the planet. It is our responsibility to make sure that the messages that children and adolescents receive from sport are healthy.

Author's Note

The patient scenario presented in this article is a composite case written to illustrate certain diagnostic characteristics and to instruct on treatment techniques. The composite case is not a real patient in treatment. Any resemblance to a real patient is purely coincidental.

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