Current PSYCHIATRY

Sport psychiatry

How to keep athletes in the game of life, on or off the field

Some athletes' toughest opponents are depression, addictions, and eating disorders. Managing these patients' mental illnesses is a new niche for psychiatry

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Sport psychiatry—a relatively new subspecialty—emphasizes treating mental illness caused in athletes by a pre-existing disposition, stressors unique to sports, or use of anabolic steroids or other substances. Sport psychiatrists do not set out to enhance an athlete's performance, although effective therapy may produce that outcome.

Athletes of all ages and levels, from Little League to the Olympics, are vulnerable to psychiatric disorders. Using real-life examples, let's look at the practice of sport psychiatry and examine common psychopathologies in athletes.

Psychiatry in the gym

Psychiatric illness in an amateur or professional athlete may arise from coincidence, a predisposing pathology that first attracted the athlete to the arena, or a psychopathology caused by the sport itself. Some athletes succumb to suicide (*Box 1*),[1] although insufficient data exist to establish the prevalence.

Educating athletes, their families, coaches, and trainers about mental illness is key to identifying at-risk athletes and

Box 1

NO MORE FOOTBALL, NO MORE MEANING

An article in *Sports Illustrated* describes a history consistent with attention-deficit/hyperactivity disorder in a young man named "Kenny," who played high school football and ultimately took his own life. In the sportswriter's words:

"…to be in sports, to be active—that was always what motivated him, diverted him from the less active pleasures of life. His grades were invariably better during the football season. The only time he really floundered was after he finished school, and there was no more football to point to in the fall."[1]

referring them for treatment. To that end, think of sports and psychiatry in a consultation-liaison model.[2] A psychiatrist working alongside an orthopedist at the gym would help remove the stigma of psychiatric illness in sports and allow for timely diagnosis and treatment.

Special stressors of athletes

Stressors unique to athletes that may cause, trigger, or worsen psychopathology include pressure to win, constant risk of injury, and the specter of sudden retirement at an early age.

Pressure to win. Parents and coaches pursuing vicarious aspirations may push a child athlete to physical and emotional extremes, a dynamic that Tofler calls "achievement by proxy."[3] These adults may send children away from home for training or remove them from school in the hope that they will excel at a sport. Intense training may preclude normal childhood friendships and pursuits and may become frankly abusive.[4]

Gymnast Christy Henrich competed in one World Cup gymnastics meet with a broken foot and ultimately died of complications of anorexia nervosa. During the girl's training, her mother was quoted as saying, "A gymnast without a high pain threshold is a gymnast without a career. Their body is a machine, and they are a person. The two are separate."[5]

Injuries can threaten the athlete's career and are a major cause of stress. Olympic diver Greg Louganis was devastated by knee injuries that ended his gymnastics career at a young age, before he switched to diving.[6]

Retirement. Even in the absence of injuries, most athletic careers are relatively short because of their physical demands. Professional athletes may be so focused on their sports careers that they are ill-equipped to face life without athletic competition. Retirement, with its abrupt change in emotional support and finances, can be overwhelming.

Golden Gloves boxer Gerry Cooney recalls a difficult descent into retirement, complicated by alcohol. He received treatment and now runs an organization designed to help other boxers through the transition to a life without sports.

Affective disorders in athletes

Unipolar and bipolar affective disorders occur in athletes, as in any population. Sometimes athletes with depression find temporary relief in athletic involvement—in some cases for substantial periods.

Depression. U.S. Olympic diver Wendy Williams describes years of denying and coping with depression. Eventually, however, her affective symptoms required psychiatric intervention. Refusing medication, she first tried psychotherapy alone. Several years later, after a worsening of symptoms and several episodes of suicidal ideation, Williams relented to drug therapy to good effect.[7]

Bipolar disorder. Bipolar mania can cause the same behavioral disturbances in athletes as in anyone else. Stressors in professional athletes' lives can trigger a manic episode, however, and the public may witness the episode's manifestations. When this occurs, the athlete's mental illness is generally misunderstood by the public and misrepresented in the media.

In discussing the use of psychological screens for prospective National Football League players, for example, a sportswriter explained the rationale as going for "…the right mix of on-field aggression and off-field character. No team wants to draft the next Dimitrius Underwood."[8]

Underwood, who reportedly has bipolar disorder, slashed his throat under the pressure of being a first-round draft pick while a member of the Miami Dolphins. He survived and went on to play 19 NFL games before being released this season by the Dallas Cowboys.[9]

Anxiety disorders

Obsessive-compulsive disorder may have unique manifestations on the baseball diamond, where the batter wears his "lucky socks" to every game, spits his tobacco juice in a particular pattern, or taps his bat on the ground a requisite number of times before approaching the plate. It is easy to imagine

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that the features of obsessive-compulsive personality disorder, present in a subset of those with obsessive-compulsive disorder, can contribute to athletic success.

Repetition and perfectionism are required for the athlete who aspires to succeed at the elite level. U.S. speed skater Eric Hayden wore grooves into a wooden board on which he tirelessly practiced the side-to-side motion that hypertrophied his quadriceps en route to the Olympic gold medal.

Social phobia. Some athletes with social phobia appear to express a counterphobic response on the field or find an escape from their anxiety in this forum. Perhaps Ricky Williams, who has acknowledged that he is being treated for social anxiety disorder, takes refuge behind the armor of his helmet and uniform as a running back for the NFL's Miami Dolphins.[10]

Panic disorder. Earl Campbell, a former NFL running back, developed panic disorder after his retirement from professional football. The chest pain and palpitations he experienced caused him to seek help, but he told a newspaper reporter, "I didn't realize I was going to a shrink, and when I found out, I almost slugged him."[11] After an initial prescription of alprazolam, Campbell's panic symptoms were well managed through relaxation techniques and exercise.

Posttraumatic stress disorder (PTSD). Julie Krone, the celebrated female jockey, developed PTSD after two falls from her mount: a serious spill from which she recovered, and later a more minor fall that resulted in two broken wrists.[12] Her anxiety symptoms were treated, and she went on to race horses again before her retirement. She now participates in the Women's Sports Foundation-sponsored Minds in Motion Depression Campaign to remove the stigma of PTSD.

Other disorders in athletes

ADHD. Children and adolescents with attention-deficit/hyperactivity disorder (ADHD) may find sports to be adaptive, even therapeutic. Though this theory is untested, anecdotal reports, as in *Box 1*, are suggestive.

Eating disorders. Certain athletic environments foster eating disorders, especially in athletes who are psychodynamically or genetically predisposed to disordered eating. Eating disorders appear to arise in three major sports categories:

- Where low body fat provides an advantage, including track and field, swimming, and distance running. Distance runner Mary Wazeter developed an eating disorder while attending Georgetown University on a track scholarship.[13]
- Where it is imperative to "make weight," including wrestling, horse racing, and crew. Thoroughbred jockey Herb McCauley recalls his bulimia developing when he was a high school wrestler, running in rubber suits and vomiting to keep his weight down. Later he won more than 3,000 races at major horse tracks, using diuretics and laxatives on his way to less than 2% body fat.[14]
- Where scoring may be based in part on aesthetics, including gymnastics, figure skating, diving, synchronized swimming, and—though not a competitive sport—ballet.

> When prescribing psychotropics to the athlete, consider sports-related fluid loss, VO_2 max, and cardiac output

In aesthetic sports, the onset of an athlete's eating disorder often can be traced to a single, critical comment (*Box 2*).[5]

Psychotic disorders also arise in athletes, sometimes after abuse of anabolic steroids or other substances or in association with bipolar disorder or schizophrenia. There is nothing more poignant than treating a first episode of schizophrenia in an

Box 2

'YOU'RE SO FAT!', HE SAID, AND SHE STARTED PURGING

In *Little Girls in Pretty Boxes*—her book about the rigors of gymnastics training and competition—news columnist Joan Ryan reported that one morning coach Bela Karolyi caught gymnast Erica Stokes eating a peach after several hours in the gym. "You're so lazy!" he bellowed. "You're so fat! You just come in and pig out after workouts. All you think about is food." He then made the entire team train an extra 2 hours.

According to Ryan, Stokes began purging after that tirade: "Like stress fractures and torn muscles, vomiting was simply another unavoidable insult her body would have to tolerate if she was going to survive in elite gymnastics." Ultimately, Stokes' bulimia became so severe that after 12 years she quit gymnastics, just 9 months before the 1992 Olympic games for which she had been expected to qualify.[5]

adolescent who dreams of becoming the high school's next great quarterback. The illness itself and necessary drug interventions can pose insurmountable obstacles, although the newer antipsychotics offer reduced side effects compared with older medications.

Substance abuse

Anabolic steroids. At the start of the 2002 baseball season, former Atlanta Braves third baseman Ken Caminiti shocked the sports world with allegations that "at least 50 percent" of Major League Baseball players use anabolic steroids to enhance their performance. Use of anabolic steroids is illegal without a prescription; the National Football League requires screening for steroid use, but Major League Baseball does not.

The use of performance-enhancing drugs is not unique to baseball[15] or to professional athletes. A significant percentage of high school athletes also is believed to be using anabolic steroids,[16] which cause psychiatric symptoms ranging from depression to psychosis ("roid rage") to suicide. Other commonly used performance-enhancing drugs include caffeine, human growth hormone, and erythropoietin.[16]

Alcohol and drugs. For some professional athletes, alcohol and drug abuse is as much a part of sports culture as sweat and fame. Former Major League Baseball outfielder Darryl Strawberry spent more time in treatment for alcohol and cocaine addiction than he did playing baseball toward the end of his career. He was sentenced in April 2002 to 18 months in prison after 3 years of repeated drug-related offenses and probation violations.

Psychiatric therapy for athletes

Psychotherapy. A range of psychotherapeutic techniques—from cognitive-behavioral and family therapy to insight-oriented psychotherapy—can help the troubled athlete.

Drug therapy. When prescribing psychotropic medications to an athlete, remember that the physiologic effects of exertion—such as fluid loss, increases in VO_2 max, and cardiac output—can alter drug metabolism and distribution. These effects need to be assessed case by case.

Psychotropic side effects to avoid in the athlete include sedation, extrapyramidal symptoms, orthostasis, tremor, and cardiac arrhythmias. We know little about the potential for psychotropic drugs to enhance athletic performance, and research is needed.[17]

Bottom Line

Sports training and competition can trigger or worsen depression, anxiety, eating disorders, substance abuse, and other psychopathologies in athletes of any age. Sport psychiatry offers new insights into treating this unique group of patients.

Related resources

- Mind Body and Sports (promotes sportsmanship and addresses the emotional needs of athletes of all ages). www.mindbodyandsports.com
- USA Gymnastics Athlete Wellness Program. www.usa-gymnastics.org/wellness
- Fuentes RJ, Rosenberg JM (eds). *Athletic drug reference.* Durham, NC: Clean Data, Inc., 1999.

DRUG BRAND NAMES

Alprazolam • Xanax

DISCLOSURE

The author reports no financial relationship with any company whose products are mentioned in this article, or with manufacturers of competing products.

References

1. Deford F. Kenny, dying young. *Sports Illustrated* March 9, 1981:30-2.
2. Baum AL. Sports psychiatry: An outpatient consultation-liaison model. *Psychosomatics* 1998;39(4):395-6.
3. Tofler IR, Knapp PK, Drell MJ. The achievement by proxy spectrum in youth sports. *Child Adolesc Clin North Am, Sport Psychiatry* 1998;7(4):803-20.
4. Klein FC. In gymnastics, younger isn't always better. *Wall Street Journal* June 28, 1996.
5. Ryan J. *Little girls in pretty boxes.* New York: Warner Books, 1995:75-81.
6. Dolen C. In his own words…Greg Louganis. *Knight-Ridder/Tribune News Service* Nov. 1, 1999:K0485.
7. Hersh P. Ex-olympic diver recovers from the depths. *Chicago Tribune* April 26, 2001:6-7.
8. Hruby P. Tests of character. *Insight on the news.* 2000;16:28.
9. Scorecard. OJ calls the cops—Godzilla attacks—Scalp treatment—Ali vs. Gretzky. *Sports Illustrated.* Oct. 25, 1999;91(16):33.
10. Peter J. Plenty of company. *Times-Picayune* (New Orleans). May 21, 2001.
11. Hall of Famer fights panic disorder. *The Seattle Times.* Nov. 1, 1992.
12. Krone J. Symposium on sport psychiatry. Chicago: American Psychiatric Association, 2000.
13. Mannhardt M (Wazeter), Lewis G. *Dark marathon: The Mary Wazeter story. The ongoing struggle of a world-class runner.* Grand Rapids, MI: Zondervan Publishing, 1989.
14. McCauley H. Psychiatric disorders in a special population: the athlete (part 2). Washington, DC: American Psychiatric Association annual meeting, 1999.
15. Shipley A. Baseball players say steroid use is heavy. *Washington Post* May 29,2002: D1.
16. Heath T. Crackdown continues. *Washington Post.* Sept. 8,2000:D1.
17. Baum AL. Psychopathology in athletes. In: Begel D, Burton R (eds). *Sport psychiatry.* New York: WW Norton & Co, 2000:249-59.

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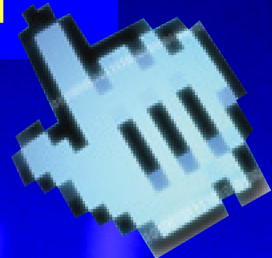

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