Mental Health in the High School Athlete

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Board Certified Family and Sports Medicine
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Goals and Objectives

• Understand and recognize the prevalence of mental health issues in student athletes
• Be familiar with the risk and protective factors for suicide
• Identify possible triggering events
• Be familiar with depression and its links to overtraining and concussion
• Recognize various presentations of anxiety
• Become familiar with ADHD, eating disorders, and bullying
• Develop a care team and treatment plan for mental health disorders and emergencies
• Understand legal and educational components of mental health issues
Definitions and Statistics

- DSM V defines “mental disorder” as:
  - “a clinically significant disturbance in cognition, emotional regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental process underlying mental functioning”

- Over 30% of adolescents meet criteria for anxiety disorder
- 20% have behavior disorders
- 14% experience mood disorders (twice as many girls as boys)
- 11% have substance-use disorders
- Prevalence increases with age; two fold increase in these disorders between age 13-14 and 17-18
Background Information

- Student athletes often define themselves by their identities as athletes.
- Factors such as injuries, conflicts with coaches and teammates, and changes in interest level in their sport can increase the risk of mental health issues or worsen an already present concern.
- Identification of these risk factors or triggers and implementation of a care plan is key to caring for a student athletes’ mental health.
Triggering Events

- Certain events may trigger a new mental health concern or exacerbate an existing condition.
  - Family or relationship issues
  - Lack of playing time
  - Violence - assault, domestic violence
  - Death of friend or family
  - Maladaptation to school issues
  - Changes in interest in sport (burnout)
  - Lack of sleep
  - Substance abuse
Specific Risks and Types of Disorders
Suicide is the 3rd leading cause of death among 15-24 year olds.
Suicide

- 4700 young adults between the ages of 14-24 die by suicide annually in the US
- 1 in 6 high school students consider suicide
- 1 in 13 high school students attempt suicide one or more times
- Firearms are the most common method of death by suicide. Suffocation, and poisoning are next most common.
- For every woman who dies by suicide, 4 men die by suicide.
  - Women are 3 times more likely to attempt suicide
## Risk and Protective Factors

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
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<tbody>
<tr>
<td>• Family history of suicide</td>
<td>• Effective clinical care for mental, physical, and substance abuse</td>
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<tr>
<td>• History of mental disorders (depression, substance abuse)</td>
<td>• Family and community support</td>
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<tr>
<td>• Feeling hopeless</td>
<td>• Skills in problem solving, conflict resolution, and non-violent ways of handling disputes</td>
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<td>• Cultural or religious beliefs</td>
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<tr>
<td>• Barriers to accessing mental health</td>
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<tr>
<td>• Unwillingness to seek help (stigma attached to mental health)</td>
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<tr>
<td>• Physical illness</td>
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<td>• Access to lethal methods</td>
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Suicide Warning Signs

**Change in Mood**
- Anxious or agitated
- Uncontrollable rage or anger - perhaps seeking revenge on others
- Depressed or sad
- Fearful responses such as not wanting to be alone
- Cries often
- Sudden mood swings

**Change in Behavior**
- Reckless or high-risk activities
- Too little or too much sleep
- Increase in substance or alcohol use

**Change in Appearance**
- Unkempt
- Poor hygiene
- Sudden weight loss or gain
- More tired than usual

**Change in Performance**
- Distracted or preoccupied thought processes
- Skipping more classes
- Drop in GPA

**Change in Social Interactions**
- Withdrawn from peers, family, and significant other
- Isolated; spends an increased amount of time alone

**Change in Focus**
- Preoccupied with death or violence
- Obsession with violent movies, music, art, or video games

**Change in Outlook**
- Hopeless
- May say things like “There is no use in trying,” or “What’s the point?”
- Helpless or feel trapped
- Lack of purpose
Student Athletes and Depression

- Participation in a team sport and athlete identity are associated with lower depression scores.
- Moderate exercise is associated with reduced depression.

*Participation in 3 or more team sports and/or investing 7 or more hours per week to sport did not have the same benefits as moderate exercise. Some increased scores for depression and anxiety*
# Signs and Symptoms of Depression

<table>
<thead>
<tr>
<th><strong>SIGNS AND SYMPTOMS OF DEPRESSION</strong></th>
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</thead>
<tbody>
<tr>
<td>Sadness or an &quot;empty&quot; mood</td>
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<tr>
<td>Feeling guilty, worthless, or helpless</td>
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<tr>
<td>Problems concentrating, remembering, or making decisions</td>
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<tr>
<td>Change in eating habits and/or weight changes</td>
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<tr>
<td>Feeling hopeless</td>
</tr>
<tr>
<td>Lack of energy or feeling tried and &quot;slowed down&quot;</td>
</tr>
<tr>
<td>Problems with sleep: Trouble getting to sleep, staying asleep, or sleeping too much</td>
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<tr>
<td>Easily angered or irritable</td>
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<tr>
<td>Wanting to be alone or spending much time alone</td>
</tr>
<tr>
<td>Loss of interest or pleasure in hobbies and activities, including sex, that were once enjoyed</td>
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</table>
Overtraining and Depression

- Overtraining - cumulative training that results in **LONG TERM** decrease in sport specific performance with disturbances in mood.
- It may take weeks or months to recover.
- Exclude other possible causes of symptoms
  - Infection
  - Nutrition
  - Sleep

![Graph showing performance and stress relationships](graph.png)
Overtraining and Depression

• Much more common in high school athletes due to sports specialization and year round training.
• Mood changes can occur in as few as two days with high intensity training.
• How do we identify those at risk???
  * Sport specific questionnaires
  * Mood assessment daily
  * Psychomotor speed tests
Reduce the risk of Overtraining

- Adequate passive rest and SLEEP!
- Parent involvement
- Coach and medical staff education
  - At least one rest day a week
  - 7-9 hours of sleep nightly
- Good nutrition
  - Well-rounded meals/snacks
  - Plenty of protein
  - Healthy carbs
Student Athletes and Anxiety

• 85% of ATCs indicate that anxiety affects their student athletes.
• Anxiety may present as physical symptoms:
  ▫ rapid heart rate, feeling weak or dizzy, feeling like “something is wrong”
• Pressure from coaches, teachers, parents and peers are the most common reasons teens list as causes of their anxiety.
Other Considerations that may Impact the Mental Health of the Student Athlete...........
Concussion

- Those student athletes that have an underlying mental health issue will likely have a longer post-concussive recovery.
- Acute post-concussive mood changes may also predict a longer recovery.
- Many athletes may not have a mental health diagnosis but will have positive screening questionnaires when they are completed pre and post concussion.
## Mood Changes and Concussion

<table>
<thead>
<tr>
<th>Thinking (Cognition)</th>
<th>Physical</th>
<th>Emotional/Mood</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling slowed down</td>
<td>Headache</td>
<td>More emotional</td>
<td>Drowsiness</td>
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<tr>
<td>in a fog</td>
<td></td>
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<td></td>
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<tr>
<td>Don’t feel right</td>
<td>Pressure in head</td>
<td>Irritability</td>
<td>Trouble falling asleep</td>
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<tr>
<td>Difficulty concentrating</td>
<td>Neck pain</td>
<td>Sadness</td>
<td>Sleeping more than usual</td>
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<tr>
<td>Difficulty remembering</td>
<td>Nausea or vomiting</td>
<td>Nervous or anxious</td>
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<tr>
<td>Confusion</td>
<td>Dizziness</td>
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### Post Concussion Syndrome

- Temper outbursts and changes in mood
- Learning and memory problems
- Impaired planning and problem solving
- Inflexibility, concrete thinking
- Lack of initiative
- Dissociation between thought and action
- Communication difficulties
- Socially inappropriate behaviors
- Self-centeredness and lack of insight
- Poor self-awareness
Substance and Alcohol Abuse

- 86% of high school students have seen a classmate drink, smoke, or use drugs during the school day.
- Having an untreated mental illness will increase the likelihood of substance or alcohol use.
- Opioid abuse is an epidemic and is becoming rampant in many high schools.
# Attention-Deficit Hyperactivity Disorder

## Symptoms of ADHD

<table>
<thead>
<tr>
<th>Symptom</th>
<th>How a child with this symptom may behave</th>
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<tbody>
<tr>
<td>Inattention</td>
<td>Often has a hard time paying attention, daydreams</td>
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<td>Often does not seem to listen</td>
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<td></td>
<td>Is easily distracted from work or play</td>
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<td></td>
<td>Often does not seem to care about details, makes careless mistakes</td>
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<td></td>
<td>Frequently does not follow through on instructions or finish tasks</td>
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<td></td>
<td>Is disorganized</td>
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<td></td>
<td>Frequently loses a lot of important things</td>
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<td></td>
<td>Often forgets things</td>
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<td></td>
<td>Frequently avoids doing things that require ongoing mental effort</td>
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<tr>
<td>Hyperactivity</td>
<td>Is in constant motion, as if “driven by a motor”</td>
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<td></td>
<td>Cannot stay seated</td>
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<td></td>
<td>Frequently squirms and fidgets</td>
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<td></td>
<td>Talks too much</td>
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<td>Often runs, jumps, and climbs when this is not permitted</td>
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<tr>
<td></td>
<td>Cannot play quietly</td>
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<tr>
<td>Impulsivity</td>
<td>Frequently acts and speaks without thinking</td>
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<td></td>
<td>May run into the street without looking for traffic first</td>
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<td>Frequently has trouble taking turns</td>
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<td>Cannot wait for things</td>
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<td></td>
<td>Often calls out answers before the question is complete</td>
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<td></td>
<td>Frequently interrupts others</td>
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# Eating Disorders/Bullying

## Eating disorders
- Focusing on weight management can become obsessive and result in an eating disorder
- Monitor for:
  - Intense fear of gaining weight
  - Compulsive exercising
  - Distorted body image
  - Chronic sore throat/swollen glands (purging)

## Bullying or Hazing
- An observed or perceived power imbalance
- For athletes this may present as:
  - Loss of focus, playing tentatively, anxiety, dropping out
- Hazing is just as prevalent in high school sports as in college sports. (22%).
  - Increased fighting, difficulty sleeping, eating, concentrating
Identification and Treatment of Mental Health Issues in Student Athletes
Team Approach

- Coaches, team physician, ATCs, school nurse, school counselor, community mental health providers, crisis counselors

- Monitor Behaviors:
  - Changes in eating and sleeping
  - Wt. loss or gain
  - Withdrawal
  - Decreased interest in activities
  - Difficulty concentrating
  - Mood swings
  - Excessive worry or agitation
  - Negative self talk
  - Increased physical complaints
The Plan

• Establish the need for a plan regarding mental health issues in the student athlete.
• Draft the plan
  ▫ Intro, education on mental health, behaviors to monitor, needs of student athletes, school district policy on referral, identify resources, discuss confidentiality
• Share the plan with school nurse, counselor, administration
• Once approved, distribute the plan to all sports medicine staff, physicians, school nurses, counselors, coaches, administrators.
• Review and update the plan annually or as needed
Mental Health Emergency Action Plan

• Respond with empathy and support
• Enact the school crisis response plan
• Ensure the safety of the student in crisis and others
• Collaborate with the health care team
  ▫ Connect immediately with the needed resources
• Mobilize the student’s support system
• Follow-up with the referrals

Mental Health First Aid ACTION PLAN

A - Approach, assess and assist with any crisis
L - Listen non-judgmentally
G - Give support and information
E - Encourage appropriate professional help
E - Encourage other supports
Mental Health History and the PPE

- Complete a basic screening questionnaire on the history portion of the PPE
  - 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 most 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
  - I have feelings of hurting myself or others
Mental Health Questionnaire
Maryland Healthy Kids Program

Ages 13 – 20 years

Check all answers that may apply. This form may be filled out by the patient, parent/guardian or healthcare provider.

Do you have trouble paying attention? [ ] Yes [ ] No

Do you often:
- Feel distrustful of others [ ] Yes [ ] No
- Have strange thoughts [ ] Yes [ ] No
- Hear voices [ ] Yes [ ] No
- Have to do things the same way over and over again [ ] Yes [ ] No

Do you have problems at school with:
- Behavior [ ] Yes [ ] No
- Grades [ ] Yes [ ] No
- Skipping classes [ ] Yes [ ] No

Do you worry about your:
- Eating [ ] Yes [ ] No
- Sleep [ ] Yes [ ] No
- Weight [ ] Yes [ ] No

Do you have trouble making or keeping friends? [ ] Yes [ ] No

Do you often feel:
- Sad [ ] Yes [ ] No
- Angry [ ] Yes [ ] No
- Nervous or afraid [ ] Yes [ ] No

Have you thought about or done any of the following:
- Destroy property [ ] Yes [ ] No
- Hurt animals [ ] Yes [ ] No
- Set fires [ ] Yes [ ] No
- Listen to music with violent message [ ] Yes [ ] No
- Use alcohol [ ] Yes [ ] No
- Use drugs [ ] Yes [ ] No
- Smoke cigarettes [ ] Yes [ ] No
- Sex without protection [ ] Yes [ ] No
- Suicide attempt [ ] Yes [ ] No

(Continued on back)

Maryland Healthy Kids Program
Maryland Department of Health and Mental Hygiene
HealthChoice and Acute Care Administration, Division of Healthy Kids

Consent Form

(Parent or Guardian and Student Permission and Approval)

I hereby consent to the above named student participating in the interscholastic athletics program at _______ school of attendance. This consent includes any and all activities and practices necessary to compete in interscholastic athletics for the above named student. I understand that I am responsible for any injuries sustained while participating in these activities and practices.

Parent or Guardian Signature: __________________________ Date: __________

Student Signature: __________________________ Date: __________

I understand that if I am not able to participate in any interscholastic athletics for the above named student, I will not be held any of the eligibility rules and regulations of the State Association.

Nature of Student: _______
Other Considerations
Legal Issues

• State laws may vary in regards to reporting threats or emergencies.

• Threat assessment
  ▫ “a significant risk” constitutes a high probability of substantial harm, not just a slight increase, speculative, or remote risk to the health or safety of the student or others

• Policies in place in regards to release of confidential information
Education and Recognition

- Provide education on stress/stress management and available services.
- Educational component on psychological health should be developed for presentation to student-athletes, coaches, and parents.
- Creating an environment in which student athletes feel “safe” discussing mental health.

- Formulate a plan to recognize and refer student athletes with psychological concerns.
  - Ideally the ATC would be the “point person” in developing a plan
  - Distribute the plan to school nurse, administrators, and community providers.
  - Have regular educational sessions for coaches, staff and students regarding mental health issues and update the plan as needed.
Future Research

• Identification of mental health issues in high school and collegic athletes is a top priority for the NCAA and NFHS.
• There are numerous research projects that are ongoing and are focusing on:
  ▫ Specific risk factors
  ▫ Screening questionnaires
  ▫ Preventative resources
  ▫ Treatment algorithms
Conclusions

• The most important factors in helping student athletes with a mental health concern are:
  ▫ Education, early recognition, effective referral

• Understanding the stressors placed on student athletes as well as possible co-morbid illnesses will help identify mental health issues in this population.

• Developing a plan to address mental health issues and emergencies will make recognition and referral more effective and will minimize risk.
Resources

• “Interassociation Recommendations for Developing a Plan to Recognize and Refer Student-Athletes With Psychological Concerns at the Secondary School Level: A Consensus Statement” *Journal of Athletic Training* 2015;50(3) 231-249.


• “Mental Well-Being and Sport Related Identities in College Students.” *Sociol Sport J.* 2009 Jule 1;26(2):335-356

• “Prevention, Diagnosis, and Treatment of the Overtraining Syndrome: Joint Consensus Statement of the European College of Sport Science and the American College of Sports Medicine.” 2012 ACSM.

• “Preinjury somatization symptoms contribute to clinical recovery after sport-related concussion.” *American Academy of Neurology.* 2012
Questions??????