

# MIND, BODY, AND SPORT: THE STATE OF MENTAL HEALTH IN YOUNG ATHLETES

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## Spectrum of Concern

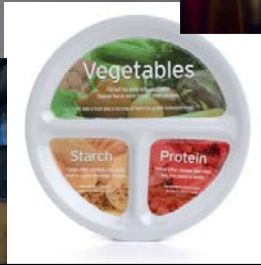
- ▣ MENTAL HEALTH
- ▣ Concussion
- ▣ PPE
- ▣ ACL Prevention
- ▣ Sudden Death
- ▣ Female triad
- ▣ ACL Rehab
- ▣ Shoulder Instability
- ▣ Medical Illness
- ▣ Nutrition/ Supplements
- ▣ Regenerative Injections
- ▣ Exercise Prescription
- ▣ Overuse/Burnout
- ▣ Athletic Pubalgia
- ▣ Stress Fractures
- ▣ Facial Injuries
- ▣ Event Coverage
- ▣ Return to Play
- ▣ Ultrasound
- ▣ OMM

## Patrick F. Leary DO LECOM HEALTH Sports Medicine Fellowship Program Director

- ▣ Ultrasound Guided Injections of Steroid, Visco, Prolotherapy, PRP, Stem Cells
- ▣ AAOM MSK Ultrasound Injection Instructor
- ▣ Fellow of ACOFP, AOASM, ACSM, AAFP
- ▣ Primary Care Sports Medicine Program Director
- ▣ Trained 19 Fellows LECOM, 16 Fellows Notre Dame
- ▣ Author/Editor 5<sup>th</sup> PPE Monograph
- ▣ 35 years experience
- ▣ Board Certified Family Medicine
- CAQ Sports Medicine & Geriatrics
- IPCEA Training Project
- Masters of Science Education
- Recent President AOASM
- PIAA Sports Advisory Committee
- ACSM Team Physician Consensus Panel
- NCAA Cardiac Task Force

## “Wellness 5” 预防

- ▣ Exercise 锻炼
- ▣ Sleep 睡眠
- ▣ Nutrition 营养
- ▣ Mental Health
- ▣ 心理健康
- ▣ Substance Abuse
- ▣ 物质滥用



## Objectives

- ▣ Discuss the current trends of mental health in adolescents.
- ▣ Identify those student athletes at risk for mental health dysfunction.
- ▣ Demonstrate a Mental Health Emergency Action and Management Plan (MHEAMP) for student athletes who have exhibited signs of deterioration.
- ▣ Assemble a campus mental health team.
- ▣ Review instruments for screening during PPE.
- ▣ Discuss Treatment Strategies

## Age 13-17 PEW Study

- ▣ Stress
- ▣ Anxiety
- ▣ Bullying
- ▣ Academic Performance
- ▣ Poverty
- ▣ Pregnancy
- ▣ Gangs
- ▣ Alcohol Consumption
- ▣ Looking Good



- ▣ Participation in Sports in the past was for those with physical ability, talent, desire and grit who were interested in extracurricular diversion and competition.
- ▣ Athletic Programs have become a source of advertisement and an enticement for increased enrollment and tuition.
- ▣ Increasingly, it is becoming a manifestation of social desire to participate in organized physical activity with or without physical ability, talent or grit. Social Connectedness/Support
- ▣ Past: Change the individual to accommodate the team; Present: Change the team to accommodate the individual.

## Americans with Disabilities Act

- ❑ Mental Health
- ❑ Equal Access
- ❑ Documentation
- ❑ Danger to athlete or teammates
- ❑ Under Reporting
- ❑ Team Physician Responsibilities
- ❑ Institutional Liability
- ❑ Sharing Information
- ❑ FERPA (Family Educational Rights and Privacy Act) of 1974



## Mental Health

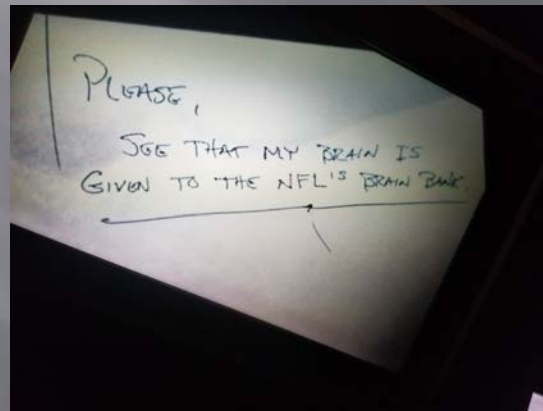
- ▣ WHAT
  - ▣ Age 13-19 Large demographic transition, nuclear family, social media, Internet
- ▣ SO WHAT
  - ▣ Increase # of suicides 47,000/2017
  - ▣ opioid addiction
  - ▣ School Performance
  - ▣ 2% Gender Dysphoria
- ▣ NOW WHAT
  - ▣ ASK, Identify, PHQ9, Refer

U.S. suicide rate has risen sharply in the 21st century  
one of six adults takes psychiatric meds





## Dave Duerson Suicide Note

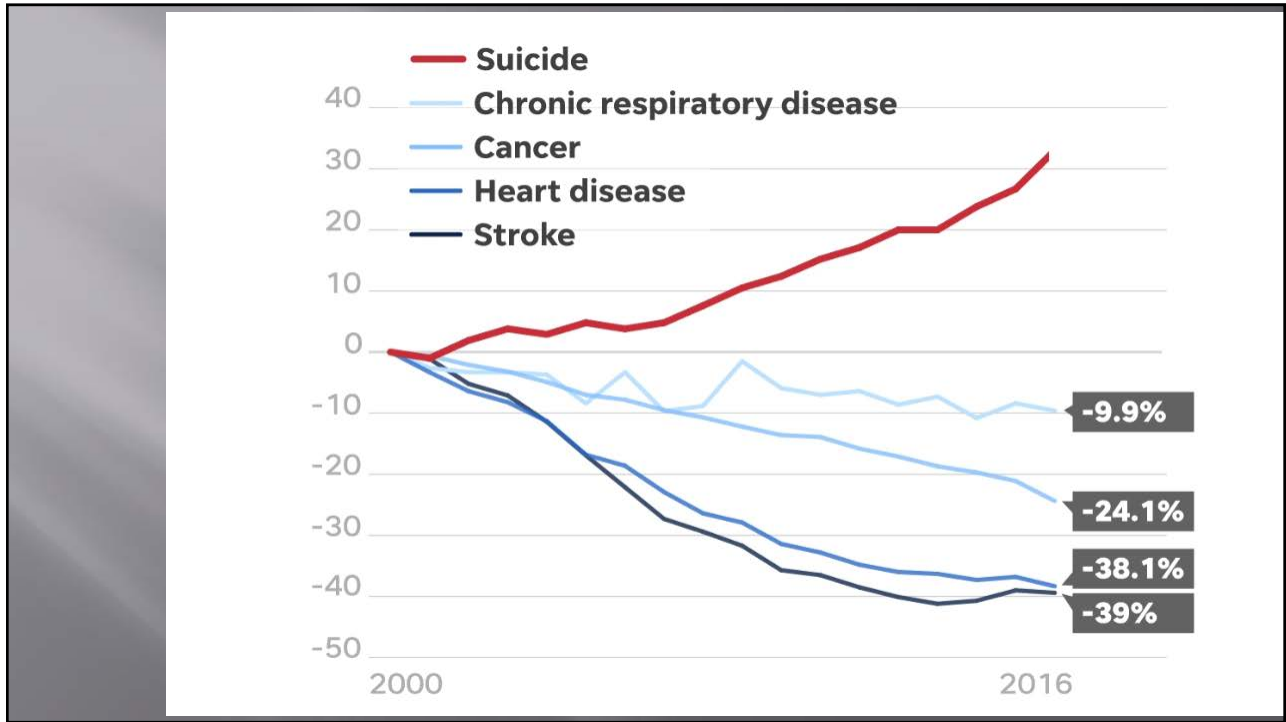


## Ellie Souter

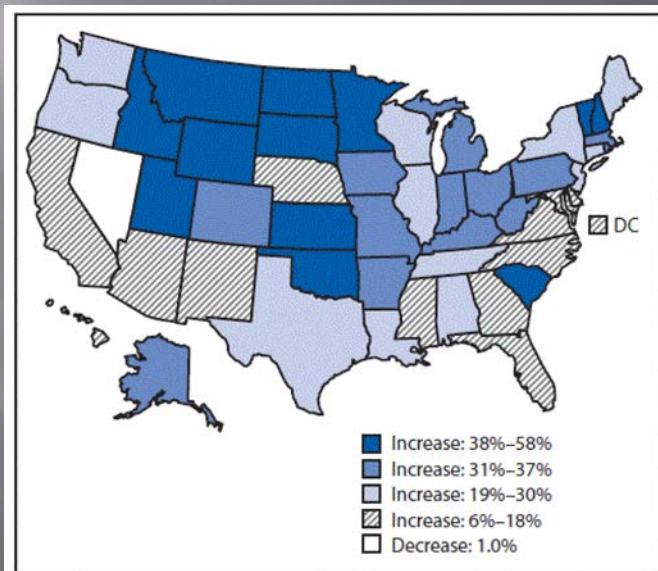


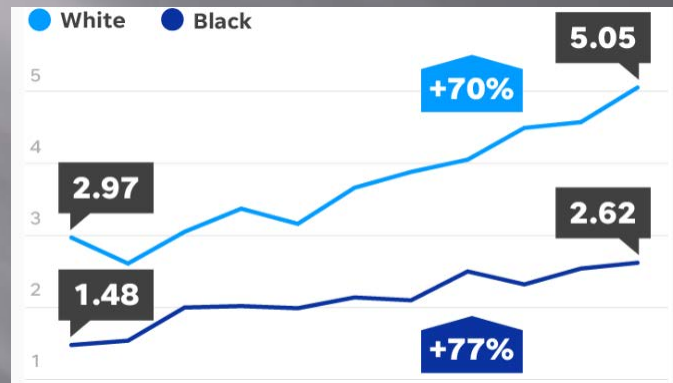
Rise in teen suicide, social media coincide; is there link?





## National Trends





## Data

- A recent study examined 9 years of NCAA data on athlete deaths and found that suicide accounted for 35 of the 477 deaths between 2003 and 2012. (7.3%)
- Suicide was the 4th most common cause of death:
  - Accidents
  - Cardiovascular fatalities
  - Homicide
- 29 of 35 suicides were male athletes (82.9%)
- Sport Specific
  - Football- 13 cases
  - Soccer- 5 cases
  - Track- 5 cases
  - Baseball- 4 cases
  - Swimming- 3 cases

Rao, A. L., I. M. Asif, J. A. Drezner, B. G. Toresdahl, and K. G. Harmon. "Suicide in National Collegiate Athletic Association (NCAA) Athletes: A 9-Year Analysis of the NCAA Resolutions Database." *Sports Health: A Multidisciplinary Approach* 7.5 (2015): 452-57

## Current trends of Mental Health in College Students

- ▣ 1 out of 2 have been in counseling
- ▣ 1 out of 3 have taken a psychiatric medication
- ▣ 1 out of 4 have self-injured
- ▣ 1 out of 3 have seriously considered suicide
- ▣ 1 in 10 have been hospitalized for psychiatric reasons
- ▣ Nearly 1 in 10 have made a suicide attempt
- ▣ 1 out of 5 have experienced sexual assault
- ▣ 1 out of 3 have experienced harassment or abuse
- ▣ 1 out of 3 have experienced a traumatic event

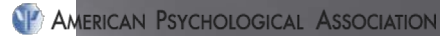
\*Center for Collegiate Mental Health (CCMH), founded by and housed at Penn State's Counseling and Psychological Services

## Current trends of Mental Health in Young Athletes

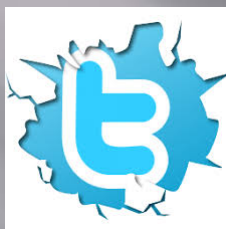
- ▣ Approximately one third of student athletes noted struggling to find energy for other tasks because of the physical demands of their sport.
- ▣ One-quarter reported being exhausted from the mental demands of their sport
- ▣ About 40% of student athletes who sought help for a mental health issue reported high levels of satisfaction with the care they received from team or college personnel.
- ▣
- ▣ That means **60%** of athletes felt unsatisfied with the care they received for their mental health problems.

\*Taken from the NCAA 2015 GOALS Study of the Student Athlete Experience

## Who's Turf?



## Mental Health or Public Health



- ❑ Economics/Financial
- ❑ Internet
- ❑ Bullying
- ❑ Child abuse
- ❑ Drug abuse
- ❑ Family Unit
- ❑ Television Advertising
- ❑ Social Media

**ODDS OF MAKING IT IN THE NFL**

• H.S. Football Players	1,086,627	• Invited to Combine	350
• H.S. Football Seniors	310,465	• Players drafted by NFL	256
• NCAA Football Players	70,147	• Rookies making a Team	300
• NCAA FR Playing FB	20,042	• % of players NCAA to NFL	1.6%
• % of HS players to NCAA	6.5%	• NFL players reaching YR 4	150
• NCAA SRs playing FB	15,588	• 2014 NFL Min Salary	\$420,000
• Players scouted by NFL	6,500	• Income after Taxes (est.)	\$252,000

If your lucky enough to be one of the **6.5%** to become a NCAA football player, and one of the **1.5%** of that group to make it to the NFL, you'll be lucky to get **THREE** years out of it. At a minimum salary, you wont make enough to live on for the rest of your life.

**WHAT'S GOING TO PROVIDE FOR YOU AND YOUR FAMILY AFTER FOOTBALL IS OVER?**

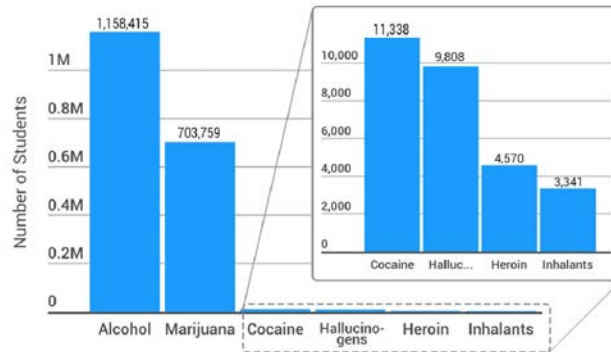
**YOUR COLLEGE EDUCATION!**

## Issues

- ❑ State of Mind
- ❑ Confidence
- ❑ Depression
- ❑ Anxiety/Stress
- ❑ Injury Recovery
- ❑ Return to Learn/Perform
- ❑ Time Urgency
- ❑ Social Support
- ❑ Finances
- ❑ Privacy
- ❑ Sleep
- ❑ Romance and reversals
- ❑ Academic Challenge
- ❑ Medications
- ❑ Substance Abuse
- ❑ Obligations
- ❑ Family History/Support
- ❑ Success
- ❑ Failure
- ❑ "Saving Face"
- ❑ Concussion
- ❑ TBI
- ❑ ADHD/PTSD
- ❑ Resources for Counselling
- ❑ Discretion
- ❑ FERPA
- ❑ Personal Appearance
- ❑ Secondary Gain

## ALCOHOL AND DRUG USE

Number of full-time college students aged 18-22 who used alcohol or illicit drugs on an average day



Source: SAMHSA, National Surveys on Drug Use and Health 2011-14  
Shakeeb Asrar, USA TODAY



## Anti-depressants

- ❑ 13% took meds in last month, Age 12 and over
- ❑ 17% Female
- ❑ 1/4 have been using for ten years
- ❑ Third leading class of medication



- ❑ National Health and Nutrition Survey 2017

Walgreens To Expand Mental Health Services



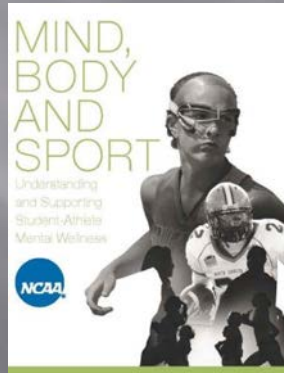
## Mental Health or Public Health

- ❑ Economy
- ❑ Internet
- ❑ Bullying
- ❑ Child abuse
- ❑ Drug abuse
- ❑ Family Unit

# MENTAL HEALTH BEST PRACTICES



INTER-ASSOCIATION CONSENSUS DOCUMENT: BEST PRACTICES FOR  
UNDERSTANDING AND SUPPORTING STUDENT-ATHLETE MENTAL WELLNESS



## Mental Health Problems

- ❑ Adjustment disorders
- ❑ Anxiety Disorders
- ❑ Cognitive disorders
- ❑ Dissociative disorders
- ❑ Eating Disorders
- ❑ Factitious Disorders
- ❑ Mood Disorders
- ❑ Schizophrenia
- ❑ Sexual and Gender Identity Disorders
- ❑ Sleep Disorders
- ❑ Somatoform Disorders
- ❑ Substance-Related Disorders



## By The Numbers

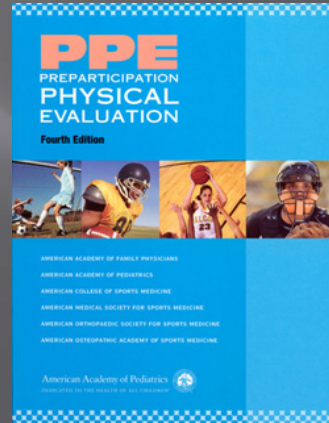
- ▣ More than 460,000 NCAA student-athletes compete in 24 sports every year.
- ▣ 1 in every 4 to 5 youths in America meets the criteria for a mental health disorder.
- ▣ 45.9 million American adults aged 18 years or older experience a mental illness
- ▣ Direct psychological care to the student athlete is outside of the scope of practice for ATC, however they play a vital role in recognizing and developing a plan to assist the team physician in addressing psychological concerns in student athletes.

## Review instruments for screening during PPE

- ▣ Currently no formalized mental health evaluation within the PPE
- ▣ Several screening tools:
  - PHQ-9
  - PHQ-2
  - GAD-7
  - CAGE
  - C-SSRS
  - AUDIT C
  - Beck Depression
  - MADRS Sleep
  - Hamilton Anxiety

# Pre Participation Evaluation

- ❑ PPE is an optimal time to ask about a history of mental health problems.
- ❑ ATC should help the student athlete make initial appointments if there is a psychological concern.
- ❑ Referral is confidential
- ❑ Imminent threats require emergent mental health evaluation



Note: Complete and sign this form (with your parents if younger than 18) prior to your appointment.

Date of Exam \_\_\_\_\_

Name \_\_\_\_\_ Date of birth \_\_\_\_\_

Sex assigned at birth (female or male) Female, you identify as (female or male) \_\_\_\_\_ Sports \_\_\_\_\_

**Past & Current Medical Conditions** \_\_\_\_\_

**Past Surgeries** \_\_\_\_\_

**Medicines & Supplements:** Please list all your current prescriptions, over-the-counter medicines, & supplements (herbal & nutritional) \_\_\_\_\_

**Allergies** \_\_\_\_\_

**MENTAL HEALTH** (Insert MH questions, not necessarily in this spot)

Over the last 2 weeks, how often have you been bothered by any of the following problems? (circle response)

Problem	0	1	2	3
Little interest or pleasure in doing things				
Feeling down, depressed, or hopeless				
<b>Generalized Anxiety Disorder 7 (GAD-7)</b>				
Feeling nervous, anxious, or on edge				
Not being able to stop or control worrying				
Worrying too much about different things				
Trouble relaxing				
Being so restless that it's hard to sit still				
Becoming easily annoyed or irritable				
Feeling afraid something awful might happen				

**GENERAL QUESTIONS** (Explain "Yes" answers below. Circle questions you don't know the answers to.)

Question	Yes	No
1. Do you have any concerns that you would like to discuss with your provider?		
2. Has a provider ever denied or restricted your participation in sports for any reason?		
3. Do you have any ongoing medical issues or recent illness? If so, please explain below: Other: _____		
<b>HEART HEALTH QUESTIONS ABOUT YOU</b>	Yes	No
4. Have you ever passed out or nearly passed out DURING or AFTER exercise?		
5. Have you ever had discomfort, pain, tightness, or pressure in your chest during exercise? (potentially combine with Q10)		
6. Does your heart ever race, flutter in your chest, or skip beats (irregular beats) during exercise?		

# Screening Tools

**SCREENING TOPIC:**  
**GENERAL INDEX**

**Measure:** NATA suggestion for mental health-related survey.

**Reference:** Conley KM, Bolin DJ, Carek PJ. National Athletic Trainers' Association position statement: preparticipation physical examinations and disqualifying conditions. *J Athl Train* 2014;49:102-120.<sup>18</sup>

**Adapted from:** Carroll JFX, McGinley JJ. A screening form for identifying mental health problems in alcohol/other drug dependent persons. *Alcohol Treat Quarterly* 2001;19:33-47.<sup>18</sup>

1. I often have trouble sleeping.
2. I wish I had more energy most days of the week.
3. I think about things over and over.
4. I feel anxious and nervous much of the time.
5. I often feel sad or depressed.
6. I struggle with being confident.
7. I don't feel hopeful about the future.
8. I have a hard time managing my emotions (frustration, anger, impatience).
9. I have feelings of hurting myself or others.

**Scoring:** Responses of "Yes" or "No."

**Interpretation:** Any response of "Yes" should lead to follow-up discussion between the student-athlete and a member of the primary athletics health care provider team and/or point person for determination about whether the student-athlete should be referred to a licensed mental health professional for further evaluation.

## Review instruments for screening during PPE.

<b>MENTAL HEALTH</b> [Insert MH questions, not necessarily in this spot]			
<i>Over the last 2 weeks, how often have you been bothered by any of the following problems? (circle response)</i>			
<b>Patient Health Questionnaire 2 (PHQ-2)</b>	<b>[0, 1, 2, 3]</b>		
Little interest or pleasure in doing things.	"Not at all, several days, more than half the days, nearly every day"		
Feeling down, depressed, or hopeless.	"Not at all, several days, more than half the days, nearly every day"		
<b>Generalized Anxiety Disorder 7 (GAD-7)</b>			
Feeling nervous, anxious, or on edge	"Not at all, several days, over half the days, nearly every day"		
Not being able to stop or control worrying	"Not at all, several days, over half the days, nearly every day"		
Worrying too much about different things	"Not at all, several days, over half the days, nearly every day"		
Trouble relaxing	"Not at all, several days, over half the days, nearly every day"		
Being so restless that it's hard to sit still	"Not at all, several days, over half the days, nearly every day"		
Becoming easily annoyed or irritable	"Not at all, several days, over half the days, nearly every day"		
Feeling afraid something awful might happen	"Not at all, several days, over half the days, nearly every day"		

# Screening Tools

**SCREENING TOPIC:**  
**DEPRESSION**

**Measure:** Harvard Department of Psychiatry/National Depression Screening Day Scale

**Reference:** Baer L, Jacobs DG, Meszler-Reizes et al. Development of a brief screening instrument: the HANDS. *Psychother Psychosom* 2000;69:35-41.<sup>20</sup>

Over the past two weeks, how often have you:

1. Been feeling low in energy, slowed down?
2. Blamed yourself for things?
3. Had poor appetite?
4. Had difficulty falling asleep, staying asleep?
5. Been feeling hopeless about the future?
6. Been feeling blue?
7. Been feeling no interest in things?
8. Had feelings of worthlessness?
9. Thought about or wanted to commit suicide?
10. Had difficulty concentrating or making decisions?

**Scoring:** None or a little of the time=0 points; Some of the time=1 point; Most of the time=2 points; All of the time=3 points. Sum item scores.

**Interpretation:** Score of 0-8: symptoms are not consistent with a major depressive episode. A complete evaluation is not recommended, except in the case of a positive response to the suicide question (item 9). Score of 9-16: Symptoms are consistent with a major depressive episode. Presence of a major depressive disorder is likely. A complete evaluation is recommended. Severity level is typically mild or moderate, depending upon the degree of impairment. Score of 17-30: Symptoms are strongly consistent with criteria for a major depressive episode. Presence of major depressive disorder is very likely. A complete evaluation is strongly recommended. In this higher range, the severity level may be more severe and require immediate attention. Note: Further evaluation is recommended for any individual who scores one point or more on the suicide question (item 9), regardless of the total score.

## PHQ9 Nine Questions 27 points

**PATIENT HEALTH QUESTIONNAIRE (PHQ-9)**

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

add columns  +  +

TOTAL:

10. If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all \_\_\_\_\_
- Somewhat difficult \_\_\_\_\_
- Very difficult \_\_\_\_\_
- Extremely difficult \_\_\_\_\_

# GAD 7

GAD-7				
Over the last 2 weeks, how often have you been bothered by the following problems? <i>(Use "✓" to indicate your answer)</i>	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

*(For office coding: Total Score T \_\_\_ = \_\_\_ + \_\_\_ + \_\_\_)*

# Screening Tools

**SCREENING TOPIC:**  
**ANXIETY**

**Measure:** Beck Anxiety Inventory

**Reference:** Beck AT, Steer RA. Beck Anxiety Inventory Manual. San Antonio: Harcourt Brace and Company, 1993.<sup>21</sup>

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by indicating the response option using: 0 for not at all; 1 for mildly but it didn't bother me too much; 2 for moderately – it wasn't pleasant at times; 3 for severely – it bothered me a lot.

1. Numbness or tingling	12. Hands trembling
2. Feeling hot	13. Shaky/unsteady
3. Wobbliness in legs	14. Fear of losing control
4. Unable to relax	15. Difficulty in breathing
5. Fear of worst happening	16. Fear of dying
6. Dizzy or lightheaded	17. Scared
7. Heart pounding/racing	18. Indigestion
8. Unsteady	19. Faint/lightheaded
9. Terrified or afraid	20. Face flushed
10. Nervous	21. Hot/cold sweats
11. Feeling of choking	

**Scoring:** Sum item scores.

**Interpretation:** 0-21 indicates low anxiety, 21-35 indicates moderate anxiety, more than 36 indicates high anxiety. Individuals scoring in the moderate anxiety range or higher should have a follow-up discussion between the student-athlete and a member of the primary athletics health care provider team and/or point person for determination about whether the student-athlete should be referred to a licensed mental health professional for further evaluation.

## DISORDERED EATING

**Measure:** SCOFF questionnaire

**Reference:** Hill LS, Reid F, Morgan JF et al. SCOFF, the development of an eating disorder screening questionnaire. *Int J Eat Disord.* 2010;43:344-351. <sup>19</sup>

1. Do you make yourself sick because you feel uncomfortably full?
2. Do you worry that you have lost control over how much you eat?
3. Have you recently lost more than 15 pounds in a three-month period?
4. Do you believe yourself to be fat when others say you are thin?
5. Would you say food dominates your life?

**Scoring:** Responses of "Yes" or "No."

**Interpretation:** Any response of "Yes" should lead to follow-up discussion between the student-athlete and a member of the primary athletics health care provider team and/or point person for determination about whether the student-athlete should be referred to a licensed mental health professional for further evaluation.

### SCREENING TOPIC:

## ADHD

**Measure:** Adult ADHD Self-Report Scale (ASRS-v1.1) Screener

**Reference:** Adult ADHD Self-Report Scale-V1.1 (ASRS-V1.1) Symptoms Checklist. World Health Organization 2003.<sup>26</sup>

**NOTE: As with all mental health concerns, it is important to facilitate a specialty referral to establish an ADHD diagnosis; by doing so, the clinician with expertise in assessment of these issues can effectively rule out other explanations for attention difficulties, including, but not limited to, disordered sleep, overtraining, anxiety, depression, stress and poor time management. It is important to note that although ADHD can develop in emerging adults, it is primarily a developmental disorder with childhood onset.**

Select the response option that best describes how you have felt and conducted yourself over the past six months.

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?</li> <li>2. How often do you have difficulty getting things in order when you have to do a task that requires organization?</li> <li>3. How often do you have problems remembering appointments or obligations?</li> </ol> | <ol style="list-style-type: none"> <li>4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?</li> <li>5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?</li> <li>6. How often do you feel overly active and compelled to do things, like you were driven by a motor?</li> </ol> |
|---|--|

**Scoring:** Response options are never, rarely, sometimes, often and very often. For each of questions 1, 2 and 3, assign one point to a response of sometimes, often or very often. For each of questions 4, 5 and 6, assign one point to a response of often or very often. Sum all scores.

**Interpretation:** A score of four or more indicates that symptoms may be consistent with Adult ADHD, and a follow-up consultation with a health care provider can determine whether a further evaluation is appropriate.

SCREENING TOPIC:  
**ALCOHOL USE**

**Measure:** Alcohol Use Disorders Identification Test (AUDIT-C)

**Reference:** Bush K, Kivlahan DR, McDonell MB et al. The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinking. *Arch Int Med* 1998;158:1789-1795. <sup>22</sup>

1. How often do you have a drink containing alcohol? [score 0 for never, 1 for monthly or less, 2 for two-four times a month, 3 for two-three times a week, 4 for four or more times a week]
2. How many drinks containing alcohol do you have on a typical day when you are drinking? [score 0 for one or two drinks, 1 for three or four drinks, 2 for five or six drinks, 3 for seven to nine drinks, and 4 for 10 or more drinks]
3. How often do you have six or more drinks on one occasion? [score 0 for never, 1 for less than monthly, 2 for monthly, 3 for weekly, 4 for daily or almost daily]

**Scoring:** Each question is scored on a 0-4 scale. Points are summed to give total score.

**Interpretation:** Maximum score is 12. A score of  $\geq 4$  identifies 86 percent of men who report drinking above recommended levels that meet the criteria for alcohol use disorders. A score of  $\geq 2$  identifies 84 percent of women who report hazardous drinking or alcohol use disorders. Individuals meeting or exceeding these thresholds should be referred for further evaluation from a mental health professional.

## CAGE

Have you ever felt you needed to Cut down on your drinking?

No 0

Yes +1

Have people Annoyed you by criticizing your drinking?

No 0

Yes +1

Have you ever felt Guilty about drinking?

No 0

Yes +1

Have you ever felt you needed a drink first thing in the morning (Eye-opener) to steady your nerves or to get rid of a hangover?

No 0

Yes +1

Identify those student athletes  
at risk for mental health  
dysfunction.  
STATE OF MIND

LIFE EVENTS SURVEY FOR  
COLLEGIATE ATHLETES (LESCA)

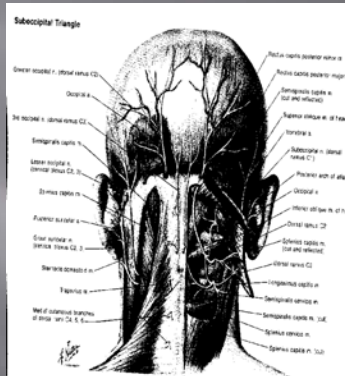
1-56 Questions

## Personal Factors

- ▣ Injury
  - History
  - Severity
  - Type
  - Perceived cause
  - Recovery Status
- ▣ Individual Differences
  - Psychological
    - ▣ Personality
    - ▣ Self-perception
    - ▣ Self-motivation
    - ▣ Motivational orientation
    - ▣ Pain tolerance
    - ▣ Athletic Identity
  - Coping skills
    - ▣ Psychological skills
  - History of stressors
  - Mood states
  - No Plan B
- Demographic
  - ▣ Gender
  - ▣ Age
  - ▣ Ethnicity
  - ▣ Socioeconomic status
  - ▣ Prior sport experience
- Physical
  - ▣ Use of ergogenic aids
  - ▣ Physical health status
  - ▣ Disordered eating







- ❑ JOINT ABOVE State of Mind, Psych, Spirit, Soul
- ❑ JOINT BELOW Brain (Concussion, Bipolar Disorder)  
CNS, Cranial Nerves, Parasympathetics

## Does Depression Contribute to Injury or Does Injury Contribute to Depression

- ❑ ACL Rupture
- ❑ ACL Surgical Repair
- ❑ Acute and Chronic Pain
- ❑ Opioids
- ❑ Marginalization/Devaluation
- ❑ Boredome
- ❑ Lack of Connection
- ❑ Self Esteem
- ❑ Loss of Control
- ❑ Finances, Scholarship, Medical Expenses

## Behaviors to Monitor That May Reflect Psychological Concerns

- ❑ Changes in eating and sleeping habits
- ❑ Unexplained weight loss or gain
- ❑ Drug or alcohol abuse
- ❑ Gambling issues
- ❑ Withdrawing
- ❑ Decreased interest in activities
- ❑ Talking about death or dying
- ❑ Loss of emotion
- ❑ Problems concentrating or focusing
- ❑ Frequent complaints
- ❑ Unexplained wounds or deliberate self harm.
- ❑ Irritable / angry
- ❑ Irresponsibility/ lying
- ❑ Legal problems
- ❑ Negative self talk
- ❑ Mood swings
- ❑ Excessive worry
- ❑ Shaking/ trembling
- ❑ GI complaints
- ❑ Headaches
- ❑ Overuse injuries

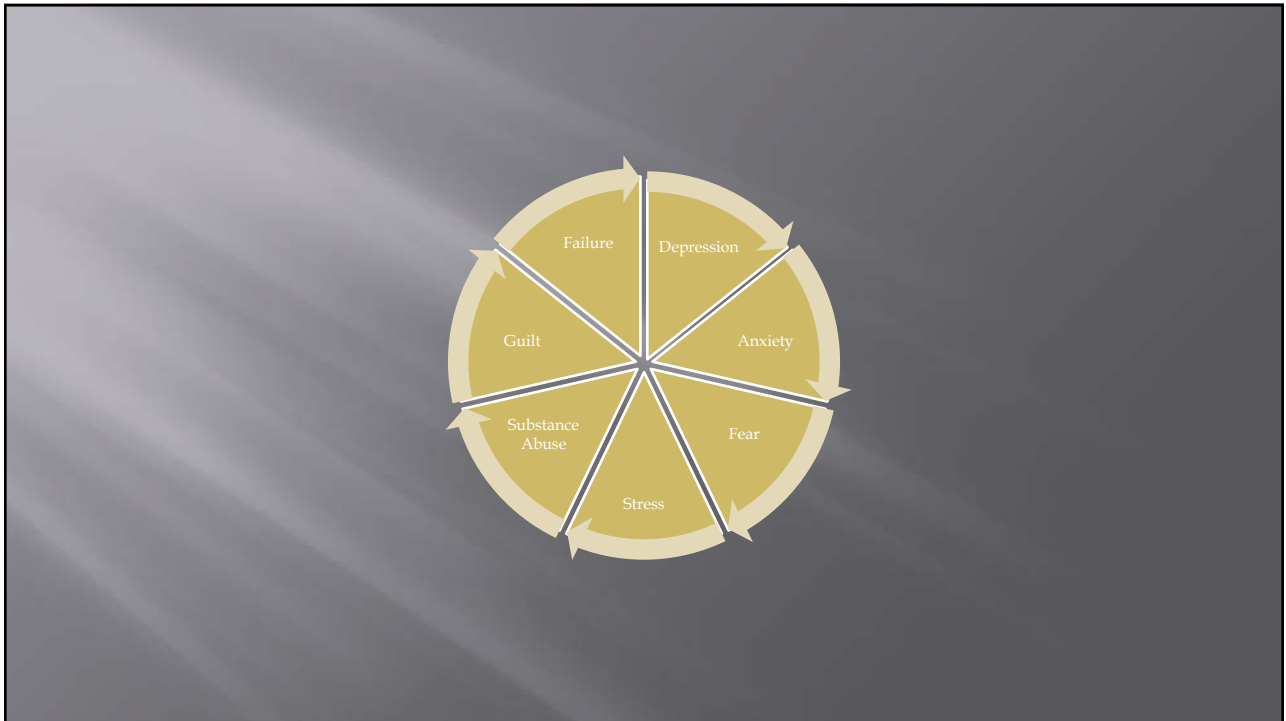
**ODDS OF MAKING IT IN THE NFL**

• H.S. Football Players	1,086,627	• Invited to Combine	350
• H.S. Football Seniors	310,465	• Players drafted by NFL	256
• NCAA Football Players	70,147	• Rookies making a Team	300
• NCAA FR Playing FB	20,042	• % of players NCAA to NFL	1.6%
• % of HS players to NCAA	6.5%	• NFL players reaching YR 4	150
• NCAA SRs playing FB	15,588	• 2014 NFL Min Salary	\$420,000
• Players scouted by NFL	6,500	• Income after Taxes (est.)	\$252,000

If your lucky enough to be one of the **6.5%** to become a NCAA football player, and one of the **1.5%** of that group to make it to the NFL, you'll be lucky to get **THREE** years out of it. At a minimum salary, you wont make enough to live on for the rest of your life.

**WHAT'S GOING TO PROVIDE FOR YOU AND YOUR FAMILY AFTER FOOTBALL IS OVER?**

**YOUR COLLEGE EDUCATION!**



## TRUE GRIT

- ▣ Sacrifice through short term setbacks for long term goals.

## Mental Health Red Flags

- ▣ Prolonged recovery
- ▣ Purposeful underreporting/over-reporting
- ▣ Missed Appointments
- ▣ Poor Performance classroom
- ▣ Poor Performance on field
- ▣ Anger Mismanagement
- ▣ Irritability
- ▣ Sleep Disturbance

## Social Support and Injury

- ❑ Listening support
- ❑ Emotional support
- ❑ Emotional challenge
- ❑ Task appreciation
- ❑ Task challenge
- ❑ Reality confirmation
- ❑ Material assistance
- ❑ Personal assistance



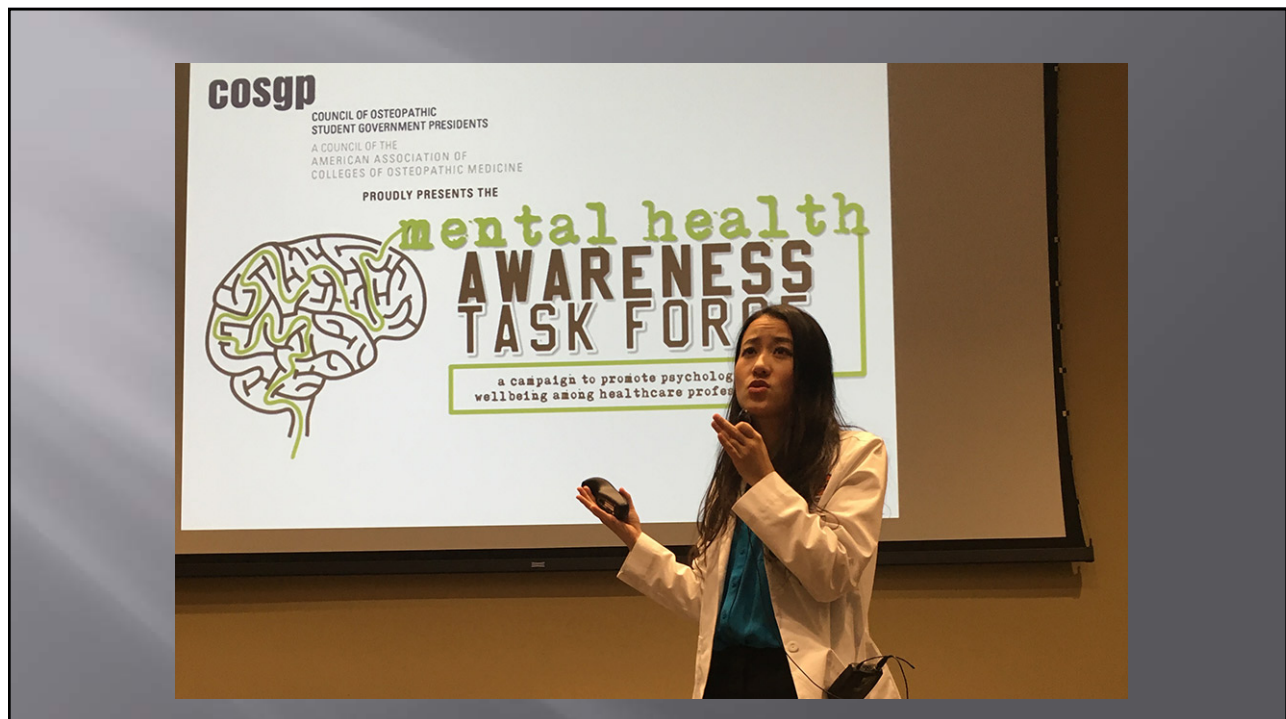
\*Richman et al.

## Mental Health Red Flags

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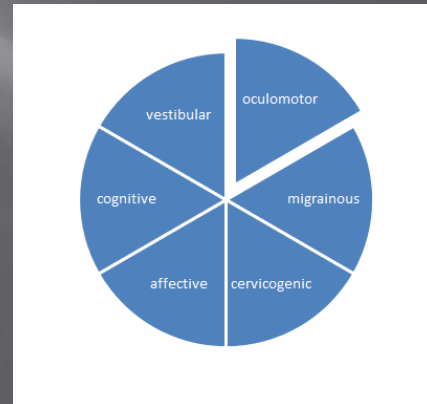
## Mental Health Emergencies

- ❑ Suicidal or Homicidal Ideations
- ❑ Sexual Assault
- ❑ Assault
- ❑ Acute Psychosis or Paranoia
- ❑ Highly Agitated or Threatening Behavior
- ❑ Acute Delirium/Confusion
- ❑ Acute Intoxication
- ❑ Drug Overdose



## Complex Concussion

- ▣ Cognitive/Fatigue
- ▣ Vestibular/Balance
- ▣ Oculomotor/Visual
- ▣ Affective/Mental Health
- ▣ Migrainous/ 35-95%
- ▣ Cervicalgia



## Mental Health Overlap

- ▣ Vocal Cord Dysfunction
- ▣ Irritable Bowel Syndrome
- ▣ Inflammatory Bowel Disease
- ▣ Anorexia Athletica
- ▣ Acid Peptic Disease
- ▣ Female Athletic Triad
- ▣ ADHD
- ▣ Concussion
- ▣ Migraines
- ▣ Sleep Apnea/Disturbance
- ▣ Obesity
- ▣ Stress/PTSD
- ▣ Anxiety
- ▣ Bullying
- ▣ Allergies

DEMONSTRATE A MENTAL  
HEALTH EMERGENCY  
ACTION AND MANAGEMENT  
PLAN (MHEAMP) FOR  
STUDENT ATHLETES WHO  
HAVE EXHIBITED SIGNS OF  
DETERIORATION.

PLACEHOLDER  
WILL DELETE

Assemble a campus mental health team.

- ▣ Team Physician
- ▣ ATC
- ▣ Campus Counseling Service
- ▣ Campus Security
- ▣ Local police
- ▣ Community based mental health care professionals
- ▣ Administrators and Coaches





## Situational factors correlate with rehab adherence

- ▣ Perceived exertion during rehab
- ▣ Perceived injury severity
- ▣ Perceived susceptibility to further complications
- ▣ Plans for next level play
- ▣ Rehab practitioner expectations
- ▣ Social support for rehab
- ▣ \*\*\* Athletes who are given specific goals have greater understanding and better adherence than those athletes not given specific goals.

## Treatments

- ▣ Stress Reduction
- ▣ Talk Therapy
- ▣ Cognitive Behavioral Therapy
- ▣ Exercise
- ▣ Sleep
- ▣ Nutrition
- ▣ Group Therapy
- ▣ Supplements
- ▣ Medication
- ▣ Psychiatric Care
- ▣ Hospital Based Care
- ▣ OMM
- ▣ Meditation
- ▣ Mindfulness
- ▣ 4-7-8 Breathing
- ▣ Yoga
- ▣ Tai Chi
- ▣ Parasympathetic Balance
- ▣ Therapy Animals
- ▣ Humor
- ▣ Companionship

### Depression and Osteopathy

The symptoms above that relate to anxiety can also be part of depression.

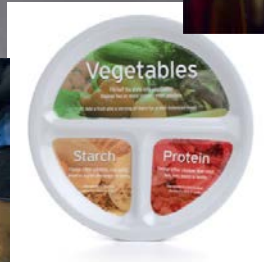
By relieving tightness and decreasing pain in the body osteopathy can help resolve depression.

Cranial osteopathy is especially useful for symptoms like migraines, and sleeping issue. Other approaches in osteopathy will contribute to relieve muscle pain and digestive problems.

Whiplash and concussion commonly cause anxiety, depression and gastrointestinal complaints. In this case, osteopathy can address the underlying trauma as well as the symptoms.

## “Wellness 5” 预防

- ❑ Exercise 锻炼
- ❑ Sleep 睡眠
- ❑ Nutrition 营养
- ❑ Mental Health 心理健康
- ❑ Substance Abuse 物质滥用
- ❑ 物质滥用



## List commonly used medications and their affects on athletic performance

- ❑ SSRI
- ❑ Hypnotics
- ❑ Psychotropic
- ❑ Opioids
- ❑ NSAIDS
- ❑ ETOH
- ❑ Antibiotics
- ❑ Stimulants
- ❑ Caffeine
- ❑ Ergogenic
- ❑ Supplements



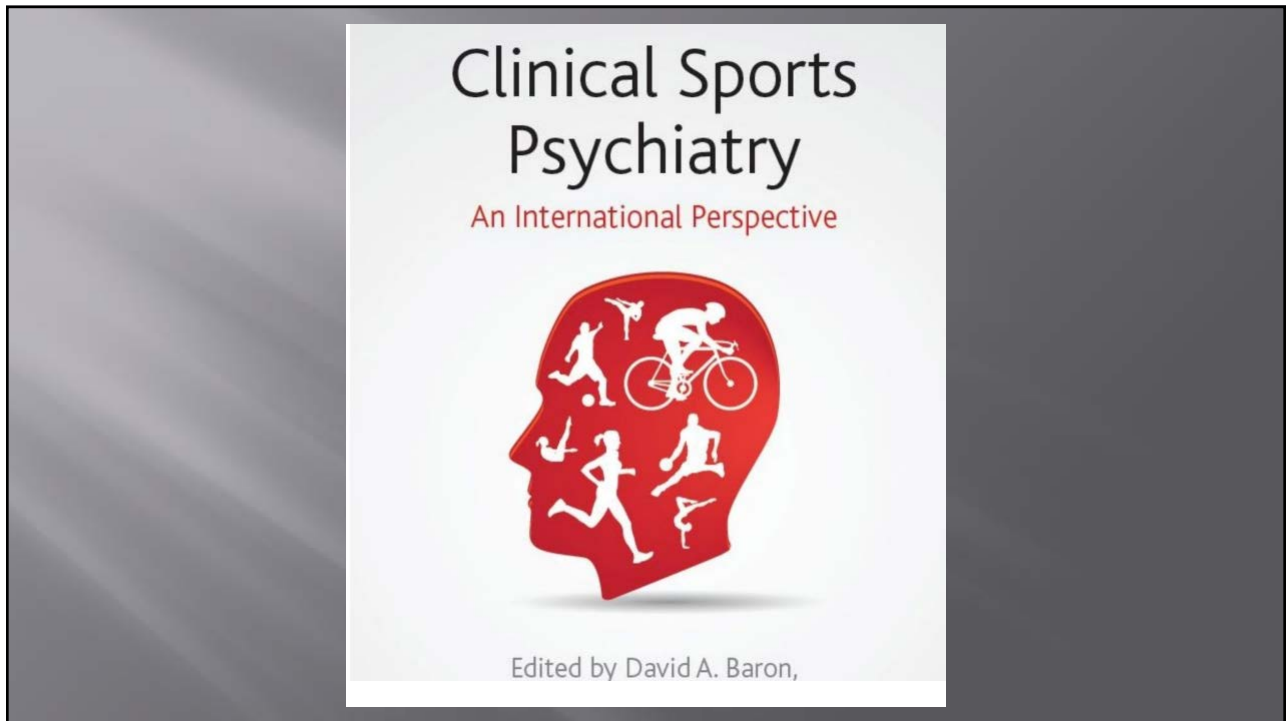
## Medication

**Table 3. Common ADHD Stimulant Medications**

Medication Name	Generic Name
Adderall	Amphetamine
Adderall XR	Amphetamine (extended release)
Concerta	Methylphenidate (long action)
Dexedrine	Dextroamphetamine
Focalin XR	Dexmethylphenidate (extended release)
Ritalin SR	Methylphenidate (extended release)
Vyvanse	Lisdexamfetamine Dimesylate

## Supplements

- ▣ Omega -3
- ▣ Probiotics
- ▣ Turmeric
- ▣ Vitamin D
- ▣ B 12
- ▣ Magnesium
- ▣ Calcium
- ▣ Melatonin
- ▣ Sam-e
- ▣ Vitamin C
- ▣ GABA
- ▣ Amino Acids



## SLEEP

Only 2% 8 hours of sleep

Depression  
Obesity  
Academic Performance

Pediatrics  
June 2018  
From the American Academy of Pediatrics  
Article

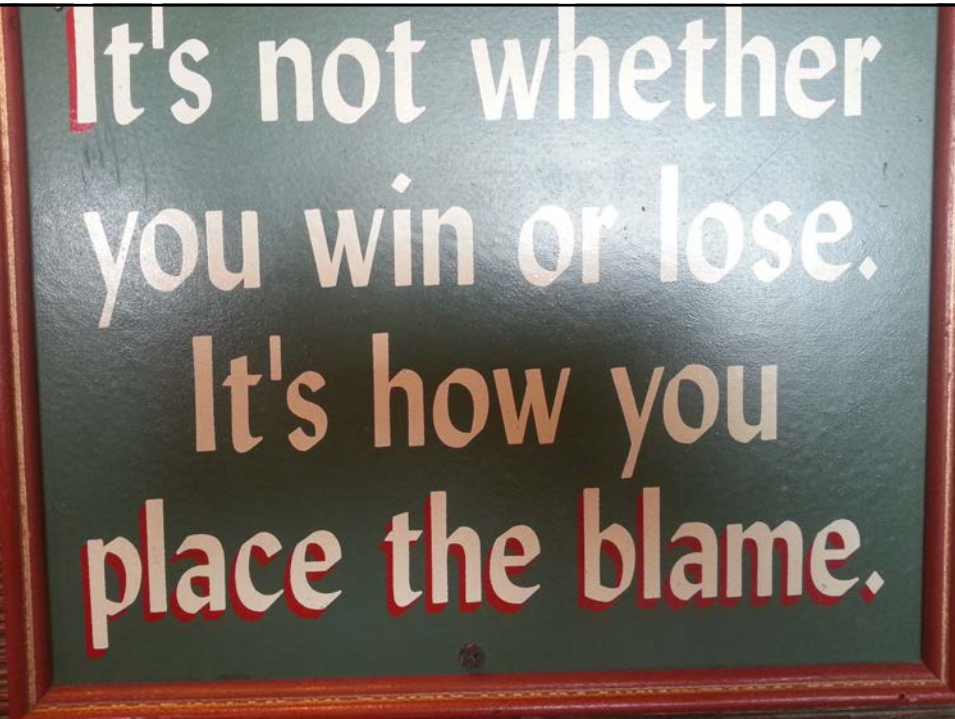
### Objective Sleep Characteristics and Cardiometabolic Health in Young Adolescents

Elizabeth M. Cespedes Feliciano, Mirja Quante, Sheryl L. Rifas-Shiman, Susan Redline, Emily Oken Taveras

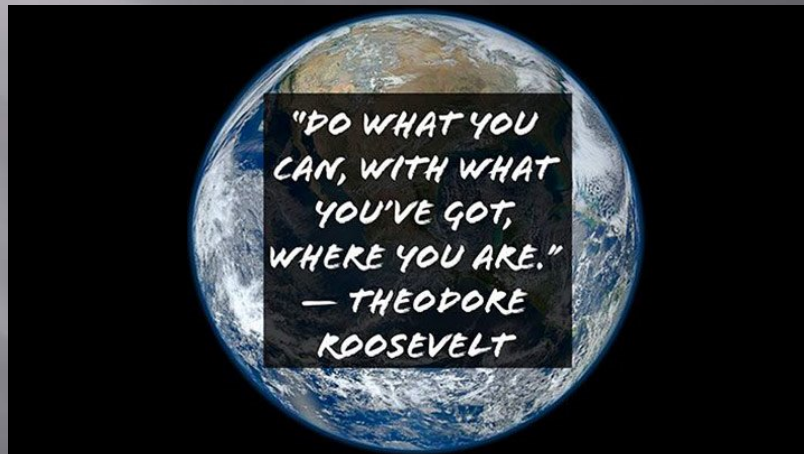


LECOM  
Sports Medicine

- ▣ LOSE SOME WEIGHT
- ▣ STAND UP STRAIGHT
- ▣ SPEED UP GAIT
- ▣ DON'T FILL PLATE
- ▣ SLEEP FOR EIGHT
- ▣ TALK TO MATE
- ▣ IMPROVE MENTAL STATE



It's not whether  
you win or lose.  
It's how you  
place the blame.



## References

- ❑ Wiese-Bjornstal, Smith, Shaffer, Morrey 1998 Journal of Applied Sport Psychology.
- ❑ Sport Psychology 2nd Edition. Singer RN, Hausenblas HA, Janelle CM. 2001 Publisher John Wiley & Sons, Inc.
- ❑ Bauman J. Returning to Play. CJSM Nov 2005, 15(6):432-435.
- ❑ Baron D. Clinical Sports Psychiatry
- ❑ Anderson MB, Williams JM. A model of stress and athletic injury;prediction and prevention. J Sport Exerc Psychol. 1988;10:294-306.
- ❑ NCAA, The. "Mental Health." *NCAA.org*. NCAA.
- ❑ Neal, Timothy L., Alex B. Diamond, Scott Goldman, David Klossner, Eric D. Morse, David E. Pajak, Margot Putukian, Eric F. Quandt, John P. Sullivan, Cory Wallack, and Victor Welzant. "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." *Journal of Athletic Training* 48.5 (2013): 716-20.

# AOASM Annual Meeting



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Save the Dates: May 1-4, 2019  
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# ACSM



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**Exercise  
is Medicine**



World Congress on  
The Basic Science  
of Exercise, Circadian  
Rhythms and Sleep

May 28-June 1, 2019 • Orlando, Florida USA



