ADHD Across the Ages: Focus on the Adult

A Free, One-Hour CME/CNE/CEP/NASW/CPE On Demand Activity
Release Date: December 2, 2009
Credit Expiration Date: December 2, 2010
On the Web: www.neuroscienceCME.com

FACULTY: David W. Goodman, MD, James McCracken, MD
MODERATOR: David Baron, MSEd, DO

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INFORMATION FOR PARTICIPANTS

Statement of Need
One of the common misconceptions about ADHD is that it occurs only in children. The reality is that ADHD can affect people of all ages. It is estimated that in the United States alone, nearly 8 million adults have ADHD. While inattentiveness, impulsivity, and hyperactivity are the same hallmark features of both child and adult ADHD, these symptoms often manifest quite differently in adults. For example, hyperactivity in the child may be excessive running and climbing, while in the adult it is driving too fast. Impulsivity in the child can show up as blurting out answers in class, whereas for the adult interrupting colleagues during a business meeting would be likely. Recognition of the symptoms of ADHD that impact everyday life—at home, at work, and socially—is critical. The good news is that adult ADHD is a treatable medical condition, when recognized and addressed with an eye toward optimal management. Current data suggests that further continuing education and professional development is warranted to address clinical practice gaps related to diagnosis and management of ADHD in adults.

In this neuroscienceCME On Demand activity, expert faculty will explore best evidence to help clinicians achieve best practice as it relates to assessment, diagnosis, and management of adult ADHD.


Activity Goal
To improve knowledge and performance through translation of best available evidence pertaining to adult ADHD diagnosis and management, given the absence of practice guidelines.

Learning Objectives
At the end of this CE activity, participants should be able to:

- Increase clinical suspicion and screening for adult ADHD to improve detection rates.
- Apply criteria to definitively diagnose adult ADHD and potential comorbid conditions.
- Develop a strategy for tailoring individualized, comprehensive treatment plans using the best available evidence, given the absence of practice guidelines.

Target Audience
Physicians, physician assistants, nurse practitioners, nurses, psychologists, social workers, certified case managers, pharmacists, and other healthcare professionals interested in diagnosis and management of adults with ADHD.

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Universal Activity Number: 376-000-09-032-L01-P (live presentation)
376-000-09-032-H01-P (recorded programs)

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Financial Support
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FACULTY BIOS & DISCLOSURES

David W. Goodman, MD
Dr. Goodman is Assistant Professor of Psychiatry and Behavioral Sciences at the Johns Hopkins University School of Medicine. He is also Director of the Adult Attention Deficit Disorder Center of Maryland in Lutherville and Medical Director of Suburban Psychiatric Associates, LLC. A 1983 graduate of Albany Medical College of Union University, Dr. Goodman completed a medical/psychiatric internship at Baltimore City Hospital and his psychiatric residency at The Johns Hopkins Hospital in 1986. Board Certified in psychiatry in November 1987, he became Associate Director of the psychiatric in-patient unit at Sinai Hospital, Baltimore, MD, for two years. Since 1989, Dr. Goodman has continued a full time clinical practice focusing on the diagnosis and treatment of mood disorders, adult Attention Deficit/Hyperactivity Disorder, Panic Disorder, and Obsessive-Compulsive Disorder. For over twenty years, he has been teaching psychiatric residents at The Johns Hopkins Hospital. Dr. Goodman has presented over 500 lectures to primary care physicians, psychiatrists, medical specialists and the general public. His psychiatric commentary has been featured on national (ABC World News, CNN Anderson Cooper 360, ESPN Sports Center) and regional television around the country, PBS and national affiliate stations, national magazines (U.S. News and World Report, Wall Street Journal, New York Times, USA Weekend Magazine, BusinessWeek) and radio interviews around the country. Dr. Goodman has been a Principal Investigator for multi-site Phase II and III drug trials for the treatment of adult Attention Deficit/Hyperactivity Disorder and Major Depression. Dr. Goodman is the lead author on the largest adult ADHD trial published. He has published articles in professional journals,
authored four book chapters and is the author of *The Black Book of ADHD*. He continues to treat patients in a full time clinical practice.

**James McCracken, MD**

Dr. McCracken is the Joseph Campbell Professor of Child Psychiatry and Director of the Division of Child and Adolescent Psychiatry at the UCLA NPI-Semel Institute (formerly the Neuropsychiatric Institute) in Los Angeles. Dr. McCracken is the principal investigator of the National Institute of Mental Health (NIMH) P50 Research Center, “Translational Research to Enhance Cognitive Control,” which aims to develop and test innovative treatments for cognitive deficits associated with childhood psychiatric illnesses.

His other current areas of research include family-genetic studies of childhood disorders and the testing of new pharmacologic treatments for a variety of neuropsychiatric disorders in children, including attention-deficit/hyperactivity disorder (ADHD), autism, obsessive-compulsive disorder, and anxiety disorders.

Dr. McCracken received medical and postgraduate training at Baylor College of Medicine, Duke University, and UCLA before joining the faculty at UCLA in 1987. He is the recipient of several honors and awards, including the American Psychiatric Association (APA) Young Psychiatrist Research Award.

He has published more than 180 papers in the area of child psychiatry and serves on the editorial board of the *Journal of Child and Adolescent Psychopharmacology*.

Dr. McCracken holds memberships in various local, national, and international professional organizations, including the APA, American Academy of Child and Adolescent Psychiatry, American College of Psychiatrists, International Society for Research in Child and Adolescent Psychopathology, Biological Psychiatry, and the Society for Neuroscience. He is listed in both the Best Doctors in America and America's Top Doctors databases.

**David Baron, MSEd, DO (Moderator)**

Dr. Baron is Professor and Chair of the Department of Psychiatry at Temple University School of Medicine. His current research interests include ADHD in substance abuse, ADHD treatment patterns in adolescents and adults, and ADHD in athletes. Dr. Baron began working in ADHD in 1988 with a group at NIMH looking at brain changes in ADHD adolescent boys. He has lectured internationally on the topic and consulted with the Singapore military on ADHD in new recruits.

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Dr. McCracken has disclosed that he receives grants from Aspect Medical Systems, Inc., Bristol-Myers Squibb Company, and Seaside Pharmaceutical, Inc. He serves as a consultant to BioMarin Pharmaceutical Inc. and Novopharm.

Dr. Baron has disclosed that he receives grants from the National Institute on Drug Abuse and the National Institute of Mental Health. He serves as a consultant to California Academy of Family Physicians, Eli Lilly and Company, Singapore Institute of Mental Health, and University of Cairo. He is also on the Data Monitoring Team of Pharmaceutical Product Development, Inc. (PPD).
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## Abbreviation List

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ADHD</td>
<td>Attention-deficit hyperactivity disorder</td>
</tr>
<tr>
<td>ADHD-RS</td>
<td>ADHD Rating Scale</td>
</tr>
<tr>
<td>AISRS</td>
<td>ADHD Investigator Symptom Rating Scale</td>
</tr>
<tr>
<td>ASRS</td>
<td>Adult Self-Report Rating Scale</td>
</tr>
<tr>
<td>BADDs</td>
<td>Brown ADD Scale</td>
</tr>
<tr>
<td>BP</td>
<td>Blood pressure</td>
</tr>
<tr>
<td>bpm</td>
<td>Beats per minute</td>
</tr>
<tr>
<td>CAARS</td>
<td>Conners' Adult ADHD Rating Scales</td>
</tr>
<tr>
<td>CHADD</td>
<td>Children and Adults with Attention Deficit/Hyperactivity Disorder</td>
</tr>
<tr>
<td>DSM-IV</td>
<td>Diagnostic and Statistical Manual of Mental Disorder, 4th edition</td>
</tr>
<tr>
<td>ER</td>
<td>Extended-release</td>
</tr>
<tr>
<td>FDA</td>
<td>Food &amp; Drug Administration</td>
</tr>
<tr>
<td>GAD</td>
<td>Generalized anxiety disorder</td>
</tr>
<tr>
<td>GI</td>
<td>Gastrointestinal</td>
</tr>
<tr>
<td>HR</td>
<td>Heart rate</td>
</tr>
<tr>
<td>Hx</td>
<td>History</td>
</tr>
<tr>
<td>IR</td>
<td>Immediate-release</td>
</tr>
<tr>
<td>MAS</td>
<td>Mixed amphetamine salts</td>
</tr>
<tr>
<td>MDD</td>
<td>Major depressive disorder</td>
</tr>
<tr>
<td>MPH</td>
<td>Methylphenidate</td>
</tr>
<tr>
<td>OCD</td>
<td>Obsessive-compulsive disorder</td>
</tr>
<tr>
<td>PE</td>
<td>Physical exam</td>
</tr>
<tr>
<td>PTSD</td>
<td>Post-traumatic stress disorder</td>
</tr>
<tr>
<td>SUD</td>
<td>Substance use disorder</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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The course guide for this activity includes slides, disclosures of faculty financial relationships, and biographical profiles.

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Moderator:
David Baron, MSEd, DO

Professor
Department of Psychiatry and Behavioral Sciences
Department of Neuroscience
Temple University School of Medicine
Philadelphia, PA

David Baron, MSEd, DO
Disclosures
- Research/Grants: National Institute on Drug Abuse; National Institute of Mental Health
- Speakers Bureau: None
- Consultant: California Academy of Family Physicians; Eli Lilly and Company; Singapore Institute of Mental Health; University of Cairo
- Stockholder: None
- Advisory Board: None
- Other Financial Interest: Data Monitoring Team of Pharmaceutical Product Development, Inc. (PPD)

David W. Goodman, MD

Director, Suburban Psychiatric Associates, LLC
Director, Adult Attention Deficit Disorder Center of Maryland
Assistant Professor, Johns Hopkins University School of Medicine, Dept. of Psychiatry and Behavioral Sciences
Baltimore, MD
The faculty have been informed of their responsibility to disclose to the audience if they will be discussing off-label or investigational uses (any use not approved by the FDA) of products or devices.

**Learning Objective 1**

Increase clinical suspicion and screening for adult ADHD to improve detection rates

**Learning Objective 2**

Apply criteria to definitively diagnose adult ADHD and potential comorbid conditions
Learning Objective 1

Increase clinical suspicion and screening for adult ADHD to improve detection rates.

Learning Objective 3

Develop a strategy for tailoring individualized, comprehensive treatment plans using the best available evidence, given the absence of practice guidelines.

Adult ADHD

Consider the Possibility

“ADHD is probably the most common chronic undiagnosed psychiatric disorder in adults. It is a disorder that is rarely inquired about and usually overlooked.”
- Paul Wender, MD

“A main obstacle to diagnosing and treating ADHD in adults is a failure to train physicians to have clinical suspicion for it.”
- Jim McCracken, MD

Adult ADHD

Common, but Under-Recognized

- Clinically significant symptoms persist into adulthood for 2/3 of individuals
- Roughly 8 million U.S. adults have ADHD

ADHD Across the Ages: Focus on the Adult

Diagnostic Challenges Contributing to Under-Diagnosis

- Low level of clinical suspicion
- Symptoms need “translation”
- Establishing childhood onset can be difficult
- Presence of comorbid disorders can be confounding
- Patient insight can vary regarding impact of behaviors
- Functional impact is not easy to assess due to compensation
- Conundrum exists when symptom fall short of diagnostic criteria

Dulcan M. J Am Acad Child Adolesc Psychiatry 1997;36(Suppl):85S-121S.

Proper Steps in Diagnosis

- Interview patient, spouse, parents to access functional impairment in multiple settings
- Ask about ADHD as a child and family hx
- Use findings to rule out differential diagnoses
- Assess for comorbid conditions
- Use rating scales to elicit self-report, corroborate clinical history, and set target symptoms for intervention

Dulcan M. J Am Acad Child Adolesc Psychiatry 1997;36(Suppl):85S-121S.

Symptom Manifestation in Adult ADHD, Compared to Child ADHD

Childhood
- Squirming, fidgeting
- Can't stay seated
- Can't wait turn
- Runs/climbs excessively
- Can't play/work quietly
- On the go/driven by motor
- Talks excessively
- Intrudes/interrupts others
- Blurs out answers

Adulthood
- Squirming, fidgeting
- Can't stay seated
- Can't wait turn
- Runs/climbs excessively
- Can't play/work quietly
- On the go/driven by motor
- Talks excessively
- Intrudes/interrupts others
- Blurs out answers

Adult ADHD
Differential Diagnosis

- Other psychiatric disorders
e.g., Asperger's, Tourette's, substance abuse disorder, OCD, anxiety, mood disorders
- Sleep deprivation or sleep disorders; stress
- Chronic and acute illness
e.g., hypothyroidism, diabetes, seizures
- Medication effects
e.g., corticosteroids, anticonvulsants, caffeine
- Hearing or visual problems


Use Scales to Evaluate Symptoms and Functioning

Interview Tools and Rating Scales for Adult ADHD
Listed alphabetically

- ADHD Rating Scale (ADHD-RS)
- Barkley Adult ADHD Rating Scale
- Brown ADD Scale (BADDs) Diagnostic Form
- Conners' Adult Attention-Deficit Rating Scale (CAARS)
- Wender-Reimherr Adult Attention-Deficit Disorder Scale
- WHO Adult ADHD Self-Report Scale (ASRS) Symptom Checklist-v1.1 and short form ASRS screener


Learning Objective 2

Apply criteria to definitively diagnose adult ADHD and potential comorbid conditions

Diagnosis Relies on “Extrapolating” Childhood Criteria

- DSM-IV-TR Criteria for ADHD
  - 6 of 9 possible inattentive symptoms, and/or
  - 6 of 9 possible hyperactive-impulsive symptoms
  - Onset in childhood before age 7
  - Symptoms present for >6 months
  - Impairment in more than one setting
  - Not due to another mental disorder

What If Not All Criteria Are Met?

- Appropriateness of directly applying the criteria to adults has been questioned
- Data from a 2006 study\(^1\)
  - Adults who meet all other criteria for the disorder except the age of onset criterion still demonstrated levels of functional impairment, psychiatric comorbidity, and familial transmission comparable to those seen in adults who met the age of onset criterion
- Subsequent versions of DSM may include alternative approaches for making valid and reliable ADHD diagnosis in adults


Comorbidity in Adult ADHD
National Comorbidity Survey Replication (N = 3199)

![Graph showing comorbidity in adult ADHD](image)


Learning Objective 3

Develop a strategy for tailoring individualized, comprehensive treatment plans using the best available evidence, given the absence of practice guidelines.
ADHD Across the Ages: Focus on the Adult

### Agents FDA-Approved for Adult ADHD

<table>
<thead>
<tr>
<th>Medication</th>
<th>Daily Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atomoxetine</td>
<td>40 mg max. 100 mg</td>
</tr>
<tr>
<td>Dexmethylphenidate XR (dMPH-XR)</td>
<td>10 mg max. none</td>
</tr>
<tr>
<td>Lisdexamfetamine</td>
<td>30 mg max. 70 mg</td>
</tr>
<tr>
<td>Mixed amphetamine salts XR (MAS-XR)</td>
<td>20 mg max. none</td>
</tr>
<tr>
<td>OROS Methylphenidate HCl</td>
<td>18 or 36 mg max. 72 mg</td>
</tr>
</tbody>
</table>


### MAS-XR Efficacy in Adult ADHD

4-Week, Double-Blind, Placebo-Controlled, Forced Titration Study (N = 255)

- Placebo: -6.6
- MAS-XR: -12.6*, -12.9*, -14.4*

* p ≤ .001 compared to placebo


### dMPH-XR Efficacy in Adult ADHD

5-Week, Double-Blind, Placebo-Controlled, Fixed-Dose Study (N = 221)

- Placebo: -7.9
- dMPH-XR: -13.7*, -13.4*, -16.9*

* p ≤ .01 compared to placebo


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ADHD Across the Ages: Focus on the Adult

**OROS-MPH Efficacy in Adult ADHD**

5-Week, Double-Blind, Placebo-Controlled, Fixed-Dose Study (N = 401)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Change from Baseline</th>
</tr>
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<tbody>
<tr>
<td>Placebo</td>
<td>-7.6</td>
</tr>
<tr>
<td>18 mg</td>
<td>-10.6*</td>
</tr>
<tr>
<td>36 mg</td>
<td>-11.5*</td>
</tr>
<tr>
<td>72 mg</td>
<td>-13.7***</td>
</tr>
</tbody>
</table>

* p = .01 compared to placebo; ** p < .001 compared to placebo


**Lisdexamfetamine Efficacy in Adult ADHD**

4-Week, Double-Blind, Placebo-Controlled, Forced Titration Study (N = 420)

<table>
<thead>
<tr>
<th>Drug</th>
<th>Change from Baseline</th>
</tr>
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<tbody>
<tr>
<td>Placebo</td>
<td>-8.2</td>
</tr>
<tr>
<td>30 mg</td>
<td>-16.2</td>
</tr>
<tr>
<td>50 mg</td>
<td>-17.4</td>
</tr>
<tr>
<td>70 mg</td>
<td>-18*</td>
</tr>
</tbody>
</table>

* p ≤ .001 compared to placebo


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**Side Effects with Stimulant Medication**

- Insomnia
- GI upset
- Cardiovascular
  - BP increased 2-4 mmHg
  - HR increased 2-4 bpm
- Decreased appetite
- Weight loss
- Headaches
- Dry mouth
- Constipation
- Hand tremors
- Irritability

- Research on individual stimulants has generally shown no dose relationship with side effects in group data1,2
- Some research has shown side effects may be more likely in stimulant-naïve patients3

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**Increased Use of IR, Despite Recommendations**

**Atomoxetine in Adult ADHD**

### Atomoxetine Efficacy in Adult ADHD

* * * 

**Study 1**

<table>
<thead>
<tr>
<th>Atomicoxetine (n = 141)</th>
<th>Placebo (n = 139)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Change from Baseline</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-6.7</td>
</tr>
<tr>
<td>Inattentive</td>
<td>-5.6</td>
</tr>
<tr>
<td>Hyperactive/Impulsive</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

**Study 2**

<table>
<thead>
<tr>
<th>Atomicoxetine (n = 129)</th>
<th>Placebo (n = 127)</th>
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</thead>
<tbody>
<tr>
<td>Mean Change from Baseline</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-6.7</td>
</tr>
<tr>
<td>Inattentive</td>
<td>-5.6</td>
</tr>
<tr>
<td>Hyperactive/Impulsive</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

* p < .001 † Baseline scores: atomoxetine 33.6; placebo 33.2
‡ Baseline scores: atomoxetine 34.9; placebo 34.2

### Atomoxetine in Adult ADHD Side Effects

<table>
<thead>
<tr>
<th>Side Effect</th>
<th>Atomicoxetine %</th>
<th>Placebo %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mouth</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Insomnia</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Nausea</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Decreased appetite</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Decreased libido</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Erectile difficulty</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Dizziness</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

Increased BP (systolic, diastolic): 1-3 mm Hg
Increased HR: 5 bpm

* All significant vs. placebo

### Psychosocial Interventions for Adult ADHD

- Education
  - Patients and family members
  - Importance of medication adherence
  - Books and websites
- Behavior and cognitive therapies
  - Structure routines
  - Audio and visual cues
  - Consistent consequences for behavior
- Individual
  - Self-esteem issues
  - Social skills and relationship issues
  - Academic and occupation accommodations
  - Coaching


### Education for Patient and Family

- Understanding the disorder
  - Medical cause
  - Not due to character weakness
- Environmental restructuring
  - Workplace/career changes
  - ADHD-friendly modifications in family, home, leisure activities
  - Structure, lists, delegating, tools
- ADHD resources
  - http://www.chadd.org
  - http://www.add.org
  - http://www.naaac.org
  - http://www.adhdcoaches.org
  - http://www.addwarehouse.com
  - http://www.help4adhd.org
ADHD Across the Ages: Focus on the Adult

**Clinical Connections**

- ADHD is very common in both children and adults—screen for ADHD regardless of age.
- Diagnostic accuracy is enhanced by considering:
  - Presenting symptoms
  - Age of onset
  - Longitudinal course: chronic, pervasive, impairing
  - Family psychiatric history
- Look for concurrent psychiatric comorbidities

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**Clinical Connections**

- Use symptom scales for baseline target symptoms and change with treatment.
- Use a multimodal approach that includes education, psychosocial interventions, and pharmacotherapy to achieve the most effective treatment outcomes.

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Bibliography


Pearl PL, Weiss RE, Stein MA. Medical mimics. Medical and neurological conditions simulating ADHD. *Ann N Y Acad Sci* 2001;931:97-112.


Verispan’s VONA, MAT Ending February 2005.


Verispan’s VONA, MAT Ending April 2009.

Post-Test

Participants are required to complete the post-test to assess their achievement of the educational objectives for this activity. To obtain a certificate or statement of credit, you must complete the post-test and indicate your answers on the Post-Test Responses section found on the credit request form. You must complete both this post-test and the evaluation to receive credit. A score of 70% is required for credit.

ADHD Across the Ages: Focus on the Adult

1. As many as _____ of children with ADHD will have clinically significant symptoms persist into adulthood.
   A. 33%
   B. 50%
   C. 67%
   D. 90%

2. Which of the following statements is correct regarding the prevalence of adult ADHD, relative to other psychiatric conditions?
   A. Adult ADHD is more common than depression
   B. Adult ADHD is more common than bipolar disorder
   C. Adult ADHD is more common than generalized anxiety disorder
   D. B and C
   E. All of the above

3. True or False: The impact of ADHD on functioning is often easy to assess in adults because, unlike children, adults generally fail to compensate for their symptoms.
   A. True
   B. False

4. Which of the following is NOT a rating scale for use in adult ADHD?
   A. Barkley Adult ADHD Rating Scale
   B. Brown ADD Scale (BADDS) Diagnostic Form
   C. Conners’ Adult Attention-Deficit Rating Scale (CAARS)
   D. School Situations Questionnaire

5. DSM-IV criteria for diagnosis of ADHD requires onset of symptoms during childhood before what age?
   A. Age 3
   B. Age 7
   C. Age 10
   D. Age 12

6. Comorbidity with MDD and bipolar disorder is approximately _____ in adults with ADHD, according to the National Comorbidity Survey Replication.
   A. 10%
   B. 20%
   C. 50%
   D. 85%

7. Which of the following agents is NOT FDA-approved for treatment of ADHD in adults?
   A. Dexmethylphenidate XR
   B. Lisdexamfetamine
   C. Guanfacine
   D. Atomoxetine
   E. Mixed amphetamine salts XR
   F. OROS Methylphenidate

8. According to the study by Weisler RH et al, all doses of mixed amphetamine salts-XR improved ADHD-RS scores by ______ points from baseline.
   A. 4 to 7
   B. 8 to 11
   C. 12 to 15
   D. 16 to 19

9. True or False: Some research has shown that side effects may be more likely in stimulant-naïve patients.
   A. True
   B. False

10. Over recent years, the use of immediate release amphetamine has ____________, despite clinical recommendations.
    A. Increased
    B. Decreased
    C. Remained the same
ADHD Across the Ages: Focus on the Adult

A CME/CNE/CEP/NASW/CCMC/CPE On Demand Activity

To receive CE credit, you must complete both this form and an evaluation form, and return the completed forms via mail to CME Outfitters, ATTN: CE Forms Processor, 1395 Piccard Drive, Suite 370, Rockville, MD 20850; or, FAX to 240.243.1033 for fastest service. Forms must be submitted within 30 days of completion of activity. A certificate or statement of credit will be mailed to you within 4–6 weeks of our receiving this form and the evaluation form.

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PLEASE PRINT CLEARLY (Form must be filled out completely to process CE credit)

First Name, MI, Last Name: __________________________________________________________________________________________________

Specialty Area: ___________________________________________________________________________________________________________

I am a:  

- ☐ Physician
- ☐ Physician Assistant
- ☐ Nurse Practitioner
- ☐ Nurse
- ☐ Psychologist
- ☐ Social Worker
- ☐ Pharmacist
- ☐ Other:________________________

Degree:  

- ☐ MD
- ☐ DO
- ☐ PhD
- ☐ NP
- ☐ RN
- ☐ PharmD
- ☐ MSW
- ☐ Other: ________________

I participated in a:  

- ☐ LIVE broadcast
- ☐ LIVE webcast
- ☐ LIVE audio feed
- ☐ Internet archive
- ☐ Rebroadcast/Videotape
- ☐ Podcast

Participation Date: _______ / _______ / _______________

Complete Mailing Address: _________________________________________________________________________________________________

City: ___________________________________________________________________ State:_________________Zip:________________________

Business Phone: ______________________________________________________Fax: ________________________________________________

Email: ___________________________________________________________________________________________________________________

Type of CE credit requested:  

- ☐ CME/Physicians (max. 1.0 _____)
- ☐ CNE/Nurses (1.0)
- ☐ CEP/Psychologists (1.0)
- ☐ NASW/Social Workers (1.0)
- ☐ CPE/Pharmacists (1.0)
- ☐ Others (1.0 CME Attendance Certificate)

Please see syllabus and course guide pages 2–3 for credit information and requirements.

How long did it take you to complete this activity? _____ hours________ minutes

Post-Test Responses (Enter letter of correct response; 70% score required for CE credit):


How did you learn about this continuing education activity?

- ☐ Postcard/direct mail
- ☐ Email
- ☐ Internet
- ☐ Colleague
- ☐ Fax
- ☐ Other:________________________

Please rate your interest in participating in future neuroscienceCME educational activities (1=highly interested, 5=uninterested): ______

What formats do you prefer for learning? (Please rank the top three; 1 = most preferred):

- ☐ Symposium
- ☐ Audioconference
- ☐ Internet
- ☐ Journal
- ☐ Satellite Broadcast
- ☐ Monograph
- ☐ CD-ROM
- ☐ Other:________________________

As a result of my participation in this activity, I will commit to:

- ☐ Sharing information from this activity with staff and colleagues.
- ☐ Yes ☐ No

- ☐ Utilizing the assessment tools described in this activity to develop an individualized management/care plan for each of my patients.
- ☐ Yes ☐ No

- ☐ Analyzing overall improvement in patient management/care through use of the therapeutic options described in this activity.
- ☐ Yes ☐ No

Signature: _____________________________________________________________________________ Date:____________________________
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1. The content level was:  
   - Too easy  
   - About right  
   - Too difficult  

2. Objective(s) were related to the overall purpose/goal of the activity (to improve knowledge and performance through translation of best available evidence pertaining to adult ADHD diagnosis and management, given the absence of practice guidelines).

3. The course met the stated objectives:
   - Increase clinical suspicion and screening for adult ADHD to improve detection rates.  
   - Apply criteria to definitively diagnose adult ADHD and potential comorbid conditions.  
   - Develop a strategy for tailoring individualized, comprehensive treatment plans using the best available evidence, given the absence of practice guidelines.

4. The educational materials were useful.  
5. The visual aids were useful and appropriate.  
6. The overall activity was excellent.  
7. The physical environment/format was conducive to learning.  
8. The moderator was effective at facilitating the faculty discussion.

9. Rate the quality of the faculty member(s) listed below, from 5 (Excellent) to 1 (Poor):

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Content</th>
<th>Clinical Relevance</th>
<th>Teaching Strategies</th>
<th>Level of Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>David W. Goodman, MD</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>James McCracken, MD</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
<td>5 4 3 2 1</td>
</tr>
</tbody>
</table>

10. Will you change the way you practice based on this activity?  
   - Yes  
   - No

11. Do you feel the activity was balanced and objective?  
   - Yes  
   - No

12. Do you feel the activity was free of commercial bias?  
   - Yes  
   - No

13. What was the most useful information you gained from this activity?  

14. Suggested topics for future activities:  

15. General comments/suggestions:  

16. I participated in a:  
   - LIVE broadcast  
   - LIVE webcast  
   - LIVE audio feed  
   - Internet archive  
   - Rebroadcast/Videotape  
   - Podcast

17. Participation date: __________ / __________ / __________

18. I am a:  
   - Physician  
   - Physician Assistant  
   - Social Worker  
   - Pharmacist  
   - Nurse Practitioner  
   - Nurse  
   - Psychologist  
   - Other: ________________

Thank you for your feedback. Your comments will be reviewed carefully and ultimately used to guide the development of our future continuing education activities.

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Attendance Form for Groups
Please complete and FAX to 240.243.1033

Activity Title and Faculty:
ADHD Across the Ages: Focus on the Adult
with David W. Goodman, MD, James McCracken, MD, and David Baron, MSEd, DO

Site/Institution Name: ________________________________________________________________

Practice Setting: ☐ Community Mental Health ☐ State Mental Health ☐ Private Practice ☐ Primary Care ☐ Other: ____________________________________________________________

Address: __________________________________________________________________________

City: __________________________ State: ________ ZIP: ________________ Phone: __________________________

Site Coordinator: ________________________________ Phone: ______________________________________
Fax: __________________________________ Email: _________________________________________________
Completion Date: ___________ We participated in a: _________________________________________________

Attendee Name (please print) Please Circle Discipline
________________________________________________________________________
 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
________________________________________________________________________
 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
________________________________________________________________________
 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
________________________________________________________________________
 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
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 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
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 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________
________________________________________________________________________
 MD  DO  PA  NP  RN  Pharm  Psychol  Other: __________________________

Please FAX completed form to 240.243.1033 and use additional sheets as necessary.
Questions? Call 877.CME.PROS. Thank you for participating in this CME Outfitters continuing education activity!

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