UVM Project ECHO
Mental Health Advanced Series:
ADHD In Primary Care

Course Directors: Sara Pawlowski, MD & Mark Pasanen, MD
ECHO Director: Patti Smith Urie

Series Faculty:

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Didactic presentation is recorded. Registered participants will receive the link.

University of Vermont
Larner College of Medicine

Project ECHO

Session Agenda

- Welcome
- Objectives
- Didactic Presentation (30-35 min)
  - Q&A
- Case presentation(s)
  - Clarifying questions
  - Discussion
- Closing Announcements
  - Topic and cases for next session
  - Feedback and evaluation

ECHO Model: All Teach, All Learn

Cohort-based learning on ZOOM

- Have your camera on as much as possible, especially when joining the meeting and during discussions
- Questions and comments are welcome – use the “raise hand” feature or put them in the chat
- This is not a webinar! Participation is key

Case-based learning

- 1-2 participant cases each session using provided template
- Contact Mark Pasanen to present a case

Series Objectives

Learning objectives for this ECHO series include the ability to:

1. Develop enhanced diagnostic and assessment skills to rule in or rule out ADHD in your practice
2. Design standard of care pharmacologic and therapeutic treatment plans for patients with ADHD
3. Discuss the complexity of ADHD and intersecting conditions (i.e., ASD, depression and anxiety)

CMIE Disclosures

The Robert Larner College of Medicine at The University of Vermont is accredited by the American Nurses Credentialing Center (ANCC), the Accreditation Council for Pharmacy Education (ACPE), and the Accreditation Council for Continuing Medical Education (ACCME), to provide continuing medical education for the healthcare team.

The University of Vermont has approved your application and designates each session a maximum of **1.5 *AMA PRA Category 1 credit(s)***™.

This program has been reviewed and is acceptable for up to **1.5 Nursing Contact Hours**.

The Robert Larner College of Medicine University of Vermont has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for **1.5 AAPA Category 1 CME credits**.

As a Jointly Accredited Organization, The Robert Larner College of Medicine at the University of Vermont is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. The University of Vermont maintains responsibility for this course. Social workers completing this course receive 1.5 continuing education credits.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to **1.5 MOC points** in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program; It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM or ABP MOC credit.

This activity was planned by and for the healthcare team, and learners will receive 1.5 Interprofessional Continuing Education (IPCE) credit for learning and change.

Participants should claim only the credit commensurate with the extent of their participation in the activity.

CMIE Disclosures

Interest Disclosures: As an organization accredited by the ACCME to sponsor continuing medical education activities, UVMCMIE is required to disclose any real or apparent conflicts of interest (COI) that any speakers may have related to the content of their presentations. >> I have no conflicts of interest to disclose, but will mention some off-label uses of medications.

Meeting Disclaimer: Regarding materials and information received during this educational event, the views, statements, and recommendations expressed during this activity represent those of the authors and speakers and do not necessarily represent the views of the University of Vermont. >> OK, fine.

Mental Health Advanced Series:
ADHD in Primary Care
Special Topics in ADHD

A Evan Eyler, MD, MPH

October 23, 2024

UVM Office of Primary Care and AHEC Program

University of Vermont
Larner College of Medicine

Project ECHO®

Session Objectives

Learning objectives for this ECHO session include the ability to:

1. Recognize several co-occurring conditions that may complicate diagnosis and treatment of ADHD.
2. Identify several potential “pitfalls” in treating ADHD and co-occurring conditions.
3. Describe the benefits of continuity of care in the diagnosis and treatment of ADHD and co-occurring conditions.

Case 1

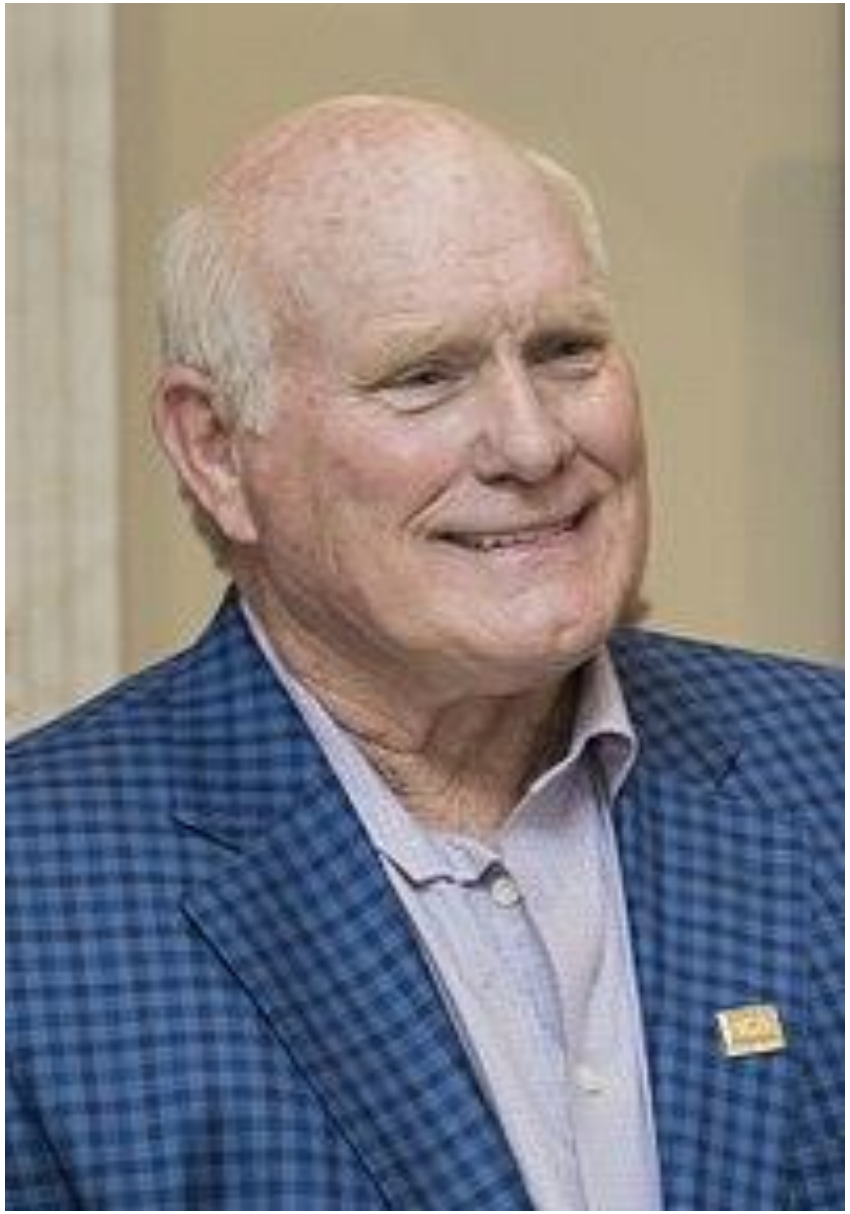
- Jannette is an 18 year-old first year university student who presents with questions about ADHD. She describes great difficulty focusing in class and in making herself take good notes. On further discussion, she acknowledges that when she is sitting still, intrusive thoughts of "committing the unforgiveable sin" enter her mind. She has a series of prayers that she says silently to herself to manage these thoughts.

Case 2

- Tom is a 24 year-old veterinary technician student who is preparing for his final exams and presents seeking treatment for ADHD. He reports that high school was difficult; he was treated for ADHD but did not take medication consistently. The vet tech program has been ideal: he is very interested in this subject and there has been a lot of hands-on work and short quizzes. But now "the stakes are higher;" he remembers how nervous he got with tests during high school, feeling like he was "going to explode." On further discussion, he acknowledges being very nervous when he has to talk to other people, much of the time. He loves working with animals and feels that this is best for him.

Case 3

- Frank is a 30 year-old heating and refrigeration technician who is at least somewhat depressed much of the time, though able to function well enough at work and socially. A few times a year, he feels “great,” clears the entire backlog of accounting preparation, is more sexual and “funnier.” The rest of the time, he does well with the hands-on work but lets receipts and invoices pile up until his supervisor makes him take care of them.



Epidemiology

- Prevalence in US 18-44 year-olds:
  - 2006: 4.4%[1]
  - 2022: 14.6%[2]
- Five-fold increase in US amphetamine prescriptions, 2004-2019[3]
- Globally: 2.6% → Resource rich countries, 4.2%; resource-poor countries, 1.9%[4]
- Co-occurring conditions, global prevalence[5]:
  - Mood disorders: OR 3.9 > "common familial vulnerabilities"
  - Anxiety disorders: OR 4.0
  - Substance use disorders: OR 4.0
  - 3 or more other disorders: OR 7.2.
- The rate of co-occurring psychiatric disorders ↑with age among adults with ADHD
  - Depression, anxiety, SUD, ASPD.
- Adult-onset ADHD >> higher risk of developing dementia later in life (ARR 2.77)

1. National Comorbidity Survey Replication, 2006
2. Adamis et al, J Atten Disord, 2022.
3. Bykov et al, JAMA Int Med 2020
4. Song et al, J Global Health, 2021.
5. NIMH Family Genetic Study of ADHD, other studies

Symptom Overlap

A Bit About Diagnostic Concerns

Symptom Overlap: Mood Disorders

- Depression
  - Poor concentration, inefficient thought processes
  - Low motivation, avoidance of activities that require a lot of thought
  - May show a different pattern – later onset, remitting/relapsing – or not.
- Activation (hypo/mania)
  - Distractible, impulsive
  - Very verbal
  - Usually NOT – elated, grandiose, hypersexual, cyclic pattern

    (Geller et al, J Affective Disorders, 1998).

Symptom Overlap: Anxiety Disorders Etc.

- Anxiety disorders are common in ADHD, 25%-33% (Kessler et al 2006)
- Anxiety may exceed inattention as a reason for testing difficulties when both problems are present.

- Anxiety symptoms may be more “off and on” than the core symptoms of ADHD – or not.
- ADHD symptoms lessen in intensity with genuine interest or external pressure.
- Anxiety symptoms may lessen with circumstances, especially social anxiety disorder, agoraphobia, etc.

- PTSD: inattention, tuning out, irritability
- OCD: inattention, tuning out, indecisiveness, sometimes even with tiny decisions.

Symptom Overlap: Substance Use Disorders

- Hyperactivity, distractibility, etc with stimulating substances
- Cognitive impairment, poor attendance, etc with many different substances
- In theory, it should be possible to distinguish these two conditions due to episodic pattern with substance use – but how easy is this really?
- Same difficulties as detecting SUD without ADHD.

- *An estimated 66% of people who misuse prescription stimulants get the medications from family or friends with prescriptions, and 20% obtain prescriptions themselves by presenting to clinicians with exaggerated or fabricated symptoms* (SAMHSA 2021).
- *In adolescents and college students, nonmedical stimulant use may be as prevalent as medical use* (Smith ME, Farah MJ, Psychol Bull 2011).
    - Attention-Deficit/Hyperactivity Disorder in Adults.: EBSCOhost (uvm.edu); Am Fam Physician 2024.

Co-occurring condition, confounder or masquerade?

- "Feeling restless" may be the best single symptom of ADHD.
  - "Network structure of symptomatology of adult ADHD in patients with mood disorders." (Lee et al, 2023, PMID: 38055014)
  - n: MDD = 373, BPI = 314, BPII = 399, assess the overall ADHD symptoms; how likely ADHD self and other report.
  - Keys: disorganization, agitation/restlessness, hyperactivity/impulsivity, inattention.
  - The centrality indices indicated that "feeling restless" was the core ADHD symptom.
- A good hint, but hardly sufficient…
- Good diagnostic evaluation, then <u>follow over time</u>.
- <u>Continuity of care</u> is key.

Treatment

Treatment:

"Despite comorbidity being the rule rather than the exception in the clinical ADHD population, comorbid disorders are most often an exclusion criterion in clinical trials studying the effects of ADHD medication."

--Lhymann et al, BMJ MH, 2024; PMID: 39304209

This is a currently under-researched area of practice.

- EHR review, 3387 patients with ADHD (Liman et al, BMC Psych 2024; PMID: 39285361).
  - ADHD only
  - ADHD + MDD
  - ADHD + anxiety disorder
  - ADHD + mood disorder
- Treatment change: switch or add on:
  - ADHD + MDD or anxiety disorder → 18.9% switch, 20.5% add on.
- Visit frequency significantly increased from baseline x 3 months, then declined by 12 months.
- *This real-world study found that treatment change was common among patients with ADHD and psychiatric comorbidities. These findings support the need for future studies to examine the unmet medical and treatment needs of this complex patient population.*

Treatment: Mood Disorders + ADHD

- Education, support
- Depression: Treat both
  - SSRI + methylphenidate → no increase in adverse events
    (Lee et al, JAMA New Open, 2024; PMID: 39382893).
  - Evidence for bupropion is strong for MDD, less so for ADHD, but it is a logical choice
    (Clark et al, Health Psychol Res 2023, PMID: 37405312).
- Cyclic mood disorders:
  - Caution and close follow-up, consult if needed
  - Mood stabilizing medication (AED, lithium)
  - Bupropion is often used; evidence is less robust than ideal
  - Among psychiatrically hospitalized patients:
    - Odds of psychosis and mania increased with past month amphetamine use (OR = 2.68)
    - Dose dependent relationship; > 30 mg dextroamphetamine equivalent (OR = 5.28)
    - ajp_20230329_Risk of Incident Psychosis and Mania With Prescription Amphetamines (uvm.edu)

Anxiety

- *Clinicians must be aware of the comorbidity of ADHD and anxiety, and when confronting it, view each disorder as independent and address each aggressively. The presence of anxiety should not be a bar to stimulant treatment, indeed, treating the ADHD may reduce the anxiety* (Bloch et al., 2017).
- *In cases where stimulants eliminate anxiety, it might be that the anxiety was secondary to the stress of the impairment caused by ADHD. Yet "secondary anxiety" cannot be the whole story given the rates of serious anxiety disorders found among those with ADHD* (Pliszka et at, J Att Dis 2019)

- Available evidence does not support stimulants, atomoxetine, etc at reasonable doses increasing anxiety.
- "Your mileage may vary."
- Anxiety disorders tend to be longstanding – set reasonable expectations and emphasize quality of life.

ADHD + OCD

- Which comes to attention first? Which is more disabling or impactful?
- OCD > often education is key. “You are not crazy. This is a recognized medical condition.”
- Foster hope, reduce shame.
- SSRIs don’t treat ADHD, stimulants don’t treat OCD.
- Stimulants may transiently induce “overfocused, perseverative or compulsive behaviors” – careful re: dose (Brown inn Brown ed ADHD and Comorbidities in Children, Adolescent and Adults).

Suggestions

- Do the best you can diagnostically, then follow over time.
- A strong therapeutic relationship is strongly therapeutic.
- Try to agree on reasonable expectations.
- Emphasize quality of life. What we do is often more important than how we feel.
- When ADHD co-occurs with another problem, usually treat both.
- “First things first.” Biggest problem, or most unsafe.
- Be aware of the lack of data in this area of practice.
- Remain alert: “there may be more” additional dx or problems.
- Consult as needed.

Case Presentation

Bringing Knowledge to Action through interactive, case-based discussions

Participant presents the case and poses the question(s) for the group

↓

Clarifying questions about the case from group to case presenter

↓

Ideas, suggestions, recommendations from participants

↓

Ideas, suggestions, recommendations from ECHO faculty team

↓

Full group discussion

↓

Summary and wrap-up by facilitator

Case Presentation

DO <u>NOT</u> INCLUDE:

Names, Address, DOB, Phone/Fax #, Email address, Social Security #, Medical Record #

Consider the level of detail necessary. Go with less when possible.

The discussion and materials included in this conference are confidential and privileged pursuant to 26VSA Section 1441-1443. This material is intended for use in improving patient care. It is privileged and strictly confidential and is to be used only for the evaluation and improvement of patient care.

UVM Office of Primary Care and AHEC Program

University of Vermont Project ECHO

Mental Health Advanced Series: ADHD in Primary Care

2024 FALL SERIES – Wednesdays from 12:00 to 1:30PM

WHO SHOULD ATTEND?
Individuals or practice teams throughout Vermont providing adult primary care, including Family Medicine and Internal Medicine, Gynecology, as well as pediatricians serving young adults in transition from pediatric to adult mental health care.

SCHEDULE	
Sept 11	Diagnosis and Screening of ADHD in Primary Care, *Clara Keegan, MD*
Sept 25	ADHD self-management at school, work and home, *Krista Buckley, MD*
Oct 9	Treatment basics, *Michael Hernandez, MD*
Oct 23	Special Topics in ADHD, *Evan Eyler, MD*
Nov 6	New Treatments, *Sara Pawlowski, MD*
Nov 20	ADHD and Neurodiversity, *Abigail Ryan, PhD*
Dec 4	Wrap-Up and Review/Participant identified topics, *Mark Pasanen, MD*

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Closing Announcements

- Slides are posted at www.vtahec.org
- Recording of didactic portion will be sent by email to the full cohort
  - **All recordings are for the use of registered participants only**
- Please complete the evaluation survey
- CMIE information and session QR code auto-send after evaluation
- Please contact us with any questions, concerns, or suggestions:
  - Mark.Pasanen@uvm.edu
  - Patti.Smith-Urie@uvm.edu