Integration of Pediatric and Adolescent Mental Health Management into the Primary Care Setting

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Objectives

• Describe models for integration of mental health services in the pediatric primary care setting.
• Become familiar with reliable, valid screening tools for identification of children and adolescents at increased risk for developmental, social-emotional, and psychiatric problems.
• Develop an understanding of the mental health problems that may be managed successfully in the primary care setting (i.e., ADHD, depression, and anxiety disorders).
• Present evidence-based treatment modalities for managing mental health problems within the primary care setting, with emphasis on anxiety disorders and depression (i.e., FDA approved pharmacologic treatments, cognitive-behavioral therapy, and other counseling modalities).
• Identify mental health problems that generally require referral outside the primary care setting.

Overview:

• The state of pediatric mental health.
• Models for integrating mental health services into primary care.

State of Pediatric Mental Health

• One in 5 children & adolescents in the U.S. experience mental health problems.
• Up to half of all lifetime cases of mental illness begin by age 14 years.
• Five percent have severe emotional disturbances that cause significant impairment in functioning.
• Early identification and intervention are key in reducing morbidity and improving outcomes.

State of Pediatric Mental Health

• Primary care providers are increasingly relied upon to detect problems and provide mental health services:
  • Long-term relationship with children & families
  • Chronic care principles of the medical home
  • Shortage of pediatric mental health providers
  • Growing need

State of Pediatric Mental Health

• Barriers to mental health services in primary care:
  • Insurance “carve out” with PCPs excluded from network of mental health providers who can be reimbursed for care.
  • PCPs generally reimbursed only for screening, assessment and/or medication management.
  • Training & comfort level of providers.
  • Time & resources.
National Organizations: Call to Action

• Both the AAP and NAPNAP have developed position papers on improving primary care access for management of behavior/mental health concerns.
• Which can be found at the following links:
  • http://pediatrics.aappublications.org/content/124/1/410.full
  • http://www.jpedhc.org/article/S0891-5245(13)00078-3/abstract

Models of Integrative Mental Health Services

• Consultative Model:
  • PCP consults with child psychiatrist via tele-health or other remote means.
• Co-location:
  • Mental health specialists located within the primary care practice.
• Collaboration:
  • Builds on medical home model by establishing treatment partnerships between PCP & MH providers.

May look like . . .

• A combination of mental health screening efforts, referral sources, and on-site interventions.
• Adhering to current guidelines and best practices.

Our

• Chairman with Priority & Commitment to Mental Health
• Primary Care Providers: NPs, Attending MDs, Residents, NP Students, Medical Students
• Social Workers (2 Full-Time): Access Powerhouses!!
• Consulting Psychologist & Psychiatrist
• Grant-Supported Mental Health Providers
• Community Mental Health Agency Therapist: On Site
• Intern Program (SW, Psychology/School Psychology)

Clinical Practice:
Options for Assessment & Treatment of Mental Health Concerns

<table>
<thead>
<tr>
<th>Age of Onset</th>
<th>Condition</th>
<th>Prevalence</th>
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<tbody>
<tr>
<td>Preterm</td>
<td>Speech Problems</td>
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<td>Developmental Delay</td>
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<td>Autism Spectrum Disorders</td>
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<td>School-age Children (3-17 year)</td>
<td>Learning Disabilities</td>
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<tr>
<td></td>
<td>Attention-Deficit-Hyperactivity Disorder (ADHD)</td>
<td>6.0%</td>
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<tr>
<td></td>
<td>Behavior or Conduct Problems</td>
<td>6.3%</td>
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<td>School-age Children (3-17 year)</td>
<td>Any Anxiety Disorder</td>
<td>18%</td>
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<tr>
<td></td>
<td>Mood Disorders</td>
<td>7%</td>
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</tbody>
</table>
Screening: Birth to 5 Years

- Maternal Depression
- Psychosocial Risk Factors: Domestic Violence, Parental Substance Abuse, Poverty
- Developmental Delays
- Surveillance for Autism
- Behavioral Concerns

Screening: Birth to 5 Years

- Evidence-Based Tools:
  - Edinburgh Postnatal Depression Scale (EPDS)
  - Domestic Violence Screener
  - Ages & Stages Questionnaire (ASQ): Available for 21 different ages from 2-60 months in both Spanish & English. Also, ASQ-SE (Social Emotional Screener for 15-20 months)
  - Modified Checklist for Autism in Toddlers-Revised (MCHAT-R): Valid from 16-30 months

Screening: Middle Childhood

- Surveillance and targeted screening for:
  - ADHD
  - Anxiety
  - Depression
  - Learning Problems
  - Other Behavior/Emotional Problems
  - Family Psychosocial Risks

Screening: Middle Childhood

- Evidence-Based Tools:
  - Pediatric Symptom Checklist (PSC): Ages 6-16
  - PSC-17
  - PSC-35
  - PSC Youth Self-Report Form (Y-PSC): Age 11 and up
  - NICHQ Vanderbilt ADHD Screening Tool: Ages 6-12
  - Parent-Initial and Follow-up
  - Teacher-Initial and Follow-up

Screening: Adolescence

- Depression
- Anxiety
- Suicidal Ideation
- Conduct & Other Behavioral Problems
- Substance Use/Abuse
- Eating Disorders
- Violence/Abuse

Screening: Adolescence

- Evidence-Based Tools:
  - PSC and Y-PSC
  - Rapid Assessment for Adolescent Preventative Services (RAAPS): Paper and electronic versions, all-purpose risk assessment
  - CRAFFT (Car, Relax, Alone, Forget, Family/Friends, Trouble): Substance Abuse Screening Tool
Assessing for Suicidal Ideation

- At what age is it appropriate to ask?
- How will you ask your patients?
- Can asking make someone suicidal?
- What specifics do you want to know?
- What are some risk factors?
- What are some protective factors?

Testing Your Knowledge:

The risk factor that is MOST predictive of suicide in an adolescent patient is

A. major mood disorder.
B. previous suicide attempt.
C. substance and alcohol abuse.
D. family history of suicide.

Answer: B

- There are usually warning signs present before an adolescent commits suicide.
- It has been reported that the odds ratio for committing suicide were much higher if there was a previous attempt, but somewhat lower with history of a mood disorder, substance abuse or alcohol problem.
- Family history of suicide is also a significant factor but not as predictive as the aforementioned factors.
- These factors should serve as red flags for caregivers treating adolescent patients.

Screening Resources

- http://agesandstages.com
- Referral for Suspected Developmental Delay (0-3yrs) https://1800earlyon.org/online_referral.php
- https://www.n-chat.org
- http://brightfutures.aap.org/tool_and_resource_kit.html
- https://www.raaps.org
- NAPNAP Developmental, Behavioral & Mental Health Special Interest Group Resource Page: http://www.dbmresource.org
- See the Melnyk book (in reference section) for many more screening tools.

Problem Identified

Now what do I do?

Determining Strategy

- Is more information required?
- Screening ≠ Diagnosis
- Can this problem be managed effectively in the primary care setting?
- Is outside referral necessary for evaluation and/or treatment?
- What resources are available & accessible for this patient/family?
Mental Health Diagnoses Managed in the Primary Care Setting

- Anxiety Disorders
- Depression without active suicidal ideation
- ADHD
- Other low acuity behavioral & developmental issues
  - Parenting skills
  - Enrichment for lack of opportunity

General Strategies:

- **Therapy:** The RULE rather than the exception
  - Should be recommended.
- **Pharmacotherapy:** Many FDA approved treatments
  - Develop a list you are comfortable with.
- **Combo of Therapy & Meds:** Research shows this to be most effective for many problems
  - The GOLD standard!!

Types of Therapy:

- CBT: Changing thoughts to change behaviors
- Behavioral Therapy with Parent(s):
  - Young children or those with cognitive impairments
- Supportive Therapy: Talk about feelings
- Problem-Focused: Grief, divorce, victim of violence or crime

Anxiety Disorders

- Many develop in childhood and persist if not treated.
- Most occur more frequently in females than in males (2:1 ratio).
- Feature excessive fear and anxiety and related behavioral disturbances.
  - Fear: Emotional response to real or perceived threat
  - Anxiety: Anticipation of future threat

Anxiety Disorders

- DSM-5 Diagnoses: Sequenced roughly according to typical age at onset.
  - Separation Anxiety
  - Selective Mutism
  - Specific Phobia
  - Social Anxiety Disorder
  - Panic Disorder
  - Agoraphobia
  - Generalized Anxiety Disorder
  - Obsessive-Compulsive Disorder (now a separate diagnostic category)
**Anxiety Disorders**

- **Treatments**
  - Behavioral: CBT, Exposure Therapy
  - Pharmacologic: Several FDA approved SSRIs
    - fluoxetine (Prozac) - OCD, Age: 7+ years
    - fluvoxamine (Lexapro) - MDD, Age: 12+ years
    - sertraline (Zoloft) - OCD, Age: 6+ years
  - Lowest dose tabs can be cut in half to start at minimal dose & titrated upward.

**Anxiety & Depression**

- **Caveat with SSRIs**
  - Drug testing was done on one narrow diagnosis to show safety and efficacy.
  - Needed a defined outcome, therefore, not tested on all anxiety or depressive disorders as a group.
  - None of the studies were conducted over an extended period of time.
  - Off label use: All SSRIs are used in practice for management of both anxiety and depression.
  - All with Black Box Warning: Potential for increase suicidality.

**Black Box Warning**

- Review of 24 studies using SSRIs prescribed to teens noted a twofold increase—from 2% to 4%—reporting suicidal ideation or behaviors.
- Although there is a slight increase in the risk of suicidality (ideation, not action) among youth in the acute phase of treatment with an antidepressant, there is a lack of evidence to prove causality.
- Patient and family education must include warnings about possible new-onset suicidal ideation.
  - Document this in your note!
- FDA recommendations include weekly visits for the first month after initiating a trial of all antidepressants, followed by every other week for 2 more visits.

**Case Study: Anxiety**

- Kallie, a 16 y.o. Caucasian female
- Reason for visit: Anxiety
- HPI: Patient reports that when she is in a big group of people, she gets anxiety attacks, characterized by feeling very fearful, her heart races and she has difficulty breathing. She has been suffering from this problem for years. It is interfering with social interactions and she rarely feels like being around other people. Recently she finds herself “always counting things.” Mother states Kallie “hides in her room most of the time.” She never wants to go anywhere with the family and she has gained weight recently. Denies suicidal ideation, but has had thoughts of hurting herself in the past with no actual plan.

**Case Study: Anxiety**

- Diagnoses: Panic disorder with agoraphobia, OCD (DSM-5)
- What is your plan?
  - Kallie was started on Zoloft (sertraline) 12.5mg (half tab) x1 week, if no side effects increase to one 25mg tab daily. (START LOW & GO SLOW!)
  - She was referred to The Children’s Center to begin cognitive behavioral therapy.
  - At one month follow up she reported: decreased fear of leaving her home, decrease in counting behaviors, no side effects. Had not yet started counseling.
Case Study: Anxiety

- Ongoing management:
  - At the one month follow up medication dose was raised to 37.5mg daily (1.5 tabs) and patient was encouraged to initiate therapy.
  - Then, never came back for 4 week follow up.
  - Saw her at two months (came to clinic for ER follow up for pharyngitis) and she reported the following: Social with family and friends, going to gym regularly, somewhat anxious about final exams but coping well, has therapy intake scheduled. Plan: Increased med dose to 50mg daily and follow up in 2 months.

Testing Your Knowledge:

In regard to generalized anxiety disorder (GAD), evidence has shown that:

A. cognitive behavior therapy leads to higher response rates than medication alone.
B. less than 50% respond to psychotherapy alone.
C. GAD is less responsive to psychotherapy than other psychiatric illnesses.
D. medication therapy provides the basis for treatment.

Answer: A

- Therapy for anxiety disorder includes psychotherapy which has response rates in 70-80% of children and leads to higher response rates, greater symptom reduction and more durable treatment outcomes than medication alone.
- Selective serotonin-reuptake inhibitors SSRIs have been shown to have equal efficacy in children and adolescents as in adult patients and are generally well tolerated by children.
- Combination of medication and psychotherapy proves the best outcomes according to recent evidence.

Testing Your Knowledge:

After 6 months of behavioral therapy, a 7 year old with selective mutism continues to refuse to speak to anyone except family members. The behavior is starting to create significant academic problems. Acceptable pharmacologic options include:

A. alprazolam (Xanax)
B. fluoxetine (Prozac)
C. clomipramine (Anafranil)
D. sertraline (Zoloft)

Answer: B & D

- Pharmacologic management is indicated with moderate to severe anxiety disorders in children who do not respond to psychotherapy; SSRIs are the medication of choice.
- Data supports short-term efficacy of SSRIs in selective mutism, generalized anxiety disorder, social phobia and separation anxiety disorder. A recent meta-analysis of randomized controlled trials found SSRIs more effective for pediatric anxiety than for depression; however, currently there are no FDA approvals for use of SSRIs in pediatric anxiety disorders other than obsessive-compulsive disorder (OCD).
- Benzodiazepines and tricyclic antidepressants have poor side effect profiles and are not generally used in pediatric populations.

Depression

- DSM-5 Diagnoses:
  - Dysthymia
  - Major Depression
  - Mild, Moderate, Severe
  - In Partial or Full Remission
  - Bipolar I
  - Bipolar II
Depression

- Treatments
  - Behavioral: CBT, Family Therapy
  - Pharmacologic: FDA approved SSRIs
    - Escitalopram (Lexapro)-MDD, Age: ≥12 years
    - Fluoxetine (Prozac)-MDD, Age: 8-18 years
    - Sertraline (Zoloft)-OCD, Age: 6+
    - Again, Black Box Warning

Case Study: Depression

- What do you want to know?
  - Thorough H&P, including family history/social stressors
  - PMH, Medications
  - Sleep, appetite, weight gain/loss
  - Substance use/abuse
  - Abuse/trauma history
  - Irritability, somatization, withdrawal from friends/family
  - Anxiety, Mania, Psychotic Symptoms
  - Suicidal Ideation—Really Probe
  - Do they feel hopeful/hopeless about future?
  - Openness to therapy and/or medication

Case Study: Depression

- Diagnosis:
  - Major Depression, Mild (DSM-5 Criteria)

- Treatment Plan:
  - Assist patient to enroll in therapy.
  - Medication trial: Prozac (fluoxetine) 10mg
    - Education: Risk v. benefits, potential side effects, Black box warning for increased suicidality.
    - Follow up: Weekly at first to gradually increase to therapeutic dose of medication.

Testing Your Knowledge:

A 15-year-old previously healthy teen is having school problems, feelings of sadness, insomnia, and disinterest in activities previously enjoyed. The parents report the teen spends hours alone, avoiding social situations. When questioned, the teen denies any desire or plan to hurt himself or others. Which would be the MOST appropriate INITIAL management of this patient?

A. prescribe a tricyclic antidepressant
B. arrange for home schooling
C. refer for immediate inpatient evaluation
D. refer for outpatient psychotherapy

Answer: D

- The acute treatment goals include shortening the episode, preventing recurrence, and decreasing the negative consequences of depression.
- The decision to utilize medications in the treatment of depression should be made with the patient and family based on factors such as the severity, chronicity, and recurrence of depression.
  - If a trial of antidepressants is initiated, selective serotonin reuptake inhibitors (SSRI’s) should be the first choice for children/adolescents due to documented safety and efficacy.
  - Tricyclic antidepressants have not been documented to be effective in children/adolescents and their use has been associated with adverse effects, notably cardiovascular events.
  - Specific psychotherapies, such as cognitive, cognitive-behavioral, interpersonal, and group cognitive-behavioral therapy, have been shown to be effective in the treatment of depression in adolescents and are a crucial component of individualized management.

Testing Your Knowledge:

An adolescent female presents with fever, tachycardia, confusion, muscle twitching and ataxia. Her current meds include fluoxetine and Lo-Ovral (an OCP). She also took St. John’s Wort because she thinks her antidepressant isn’t working. Her symptoms represent:

A. Flu-like illness
B. Adverse effects of combining SSRI and OCP
C. Panic attack
D. Serotonin syndrome
Answer: D

- Herbal supplements can interact with or potentiate the effects of prescriptions medications. Always ask about supplements.
- St. John’s Wort and fluoxetine both increase levels of serotonin in the body, which can lead to the life-threatening serotonin syndrome.
- SSRIs and birth control pills may be taken safely together.

ADHD: DSM-5

- Persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development
- Six or more of the symptoms have persisted for at least six months to a degree that is inexcusable with development and that negatively impacts directly on social and academic/occupational activities. Please note: The symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), five or more symptoms are required
- Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years
- Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g., at home, school, or work, with friends or relatives, in other activities)
- There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic or occupational functioning

ADHD

- The current consensus is that ADHD is
  - A deficit of executive functions
  - The frontal lobes are responsible for these actions:
    - Focusing attention
    - Maintaining focus
    - Switching between tasks
    - Filtering distractions
    - Impulse control
  - Executive functions allow us to weigh potential outcomes of behavior and make higher level decisions about how to behave.

ADHD: Stimulant Meds

<table>
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<tr>
<th>Dextroamphetamine/Amphetamine Class</th>
<th>Methylphenidate Class</th>
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<tbody>
<tr>
<td>Adderall (5, 10, 20, 30)</td>
<td>Ritalin (5, 10, 20)</td>
</tr>
<tr>
<td>Adderall XR (5, 10, 15, 20, 25, 30)</td>
<td>Ritalin LA (10, 20, 30, 40)</td>
</tr>
<tr>
<td>ProCentra 5/5mL liquid</td>
<td>Concerta XR-IR (8, 18, 27, 36, and 54)</td>
</tr>
<tr>
<td>Lisdexamfetamine (Vyvanse)</td>
<td>Focalin/Focalin XR</td>
</tr>
<tr>
<td>Pro-drug, dissolvable</td>
<td>Active Isomer Only</td>
</tr>
<tr>
<td>Limits abuse potential</td>
<td>XR cap can be sprinkled</td>
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<tr>
<td></td>
<td>Quillivant XR-5/1mL liquid; a new chewable</td>
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Case Study: ADHD

- 10 y.o. male presents for ADHD management. Previously diagnosed two months ago by another provider based on history, behavior in office and standardized rating scales (Vanderbilt-Parent & Teacher). Today’s complaint that the medication isn’t working. Currently taking Concerta (extended release methylphenidate) 18mg every morning. He is in the 5th grade and lives with his mom and sister. The father is not involved with the family.
- What could be going on?
Case Study: ADHD

- Dose is too low
  - If no side effects, go up (always START LOW & GO SLOW)
- Medication is working but wearing off
  - Add short acting pm dose from same stimulant class
- Symptoms caused by something other than ADHD
  - Anxiety & depression can look like ADHD
- Non-compliance
  - Ask how they are taking the medication, % of time taken, cutting/crushing tablets?
- Family is expecting treatment for non-ADHD symptoms
  - i.e., Still disrespectful, doesn’t take trash out

Wrong class of stimulant
- Switch to the other class
  - Approx. 10% will be non-responders to stimulants
- **The Biggie:** Over-reliance on medication as the only treatment modality.
  - Therapy
  - School program
  - Behavior modification program
  - Adequate sleep
  - Routine

Testing Your Knowledge:

The mother of a 10 year old with ADHD seeks help for her child who has trouble getting to sleep at night. Current evidence shows that melatonin.

A. dosage should begin with 10mg.
B. has more significant “hangover effects” than other medications used for sleep.
C. has shown efficacy in treating insomnia in children with ADHD, even those on stimulant medications.
D. should not be used in children taking stimulant medications.

Answer: C

- Children with ADHD frequently have difficulty initiating and maintaining sleep.
- In chronic idiopathic sleep-onset insomnia it has been found to significantly reduced sleep-onset latency.
- Effectiveness has also been demonstrated in children with developmental disabilities, ASD, and ADHD, including those on stimulant medication. Specifically, 3-6 mg nightly dose significantly reduced sleep latency in pediatric patients with ADHD, including those taking stimulant medications.
- Melatonin is a safe choice that does not interact with ADHD medications.

Issues that Require Referral

- Suspected Autism Spectrum Disorders
- Developmental delays
- Ideation for harm to self or others
- Mania, Bipolar Disorder suspected
- Psychotic symptoms (hearing voices, seeing things that are not there)
- Anxiety, Depression or ADHD non-responsive to first line treatments, lack of improvement, co-morbidities, etc.

Community MH Programs:

- Combine psychotherapy with psychiatric medication management=closer monitoring and more frequent follow-up.
- Programs that work in the home with the family.
- Programs that coordinate care with schools.
- Autism Centers of Excellence
Examples: Referral Required

- 16 y.o. female who failed SSRI therapy, therapist with concerns regarding potential thought disorder.
  - Referred for psychiatric consult
- 10 y.o. male under care for ADHD, poor follow up via PCP, violence toward family member.
  - Referred to crisis management and home-based care
- 8 y.o. male with ADHD, history of FAS, crack exposure in utero, failed trial of multiple stimulant medications.
  - Referred to comprehensive community treatment program

Example: Med Regimen Not Appropriate for PCP Management

- 13 year old male with ADHD and Autism diagnosis comes in for well visit.
- Current medications include:
  - Guanfacine (Intuniv)
  - Fluoxetine (Prozac)
  - Quetiapine (Seroquel)
  - Divalproex sodium (Depakote)
- Monitoring required: BP, CBC, HgbA1C, Prolactin, Lipids, Depakote level

Access to Services

- Two-tier
  - Community Mental Health=High Acuity
    - Based on CAFAS screening intake (45 minute session)
  - Other: Mild to Moderate Acuity
- Different Process for Medicaid vs. Private Coverage
  - i.e., Medicaid in Wayne County goes through a specific coordinating body to connect to an agency.
  - When in doubt, call the number on insurance card dedicated to accessing mental health benefits.

PMHS: Pediatric Primary Care Mental Health Specialist

- Post advanced practice nursing certification specialty in child and adolescent mental and behavioral health
- Offered twice per year, May & November
- Open to PNPs and FNPs
- Increases your marketability
- Eligibility Requirements at www.pncb.org

Thank You

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References

References


• Riddle, M. A. (2016). Pediatric psychopharmacology for primary care. Elk Grove Village, IL: AAP.


