Challenging Behaviors in Children and Adolescents
MSU Rural Grand Rounds

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Objectives

- Attendees will:
  - Learn screening and assessment methods for emotional and behavioral problems in children
  - Identify the uses and side effects of key psychotropic medications
  - Learn strategies for managing treatment challenges
Screening and Assessment
Assessment

Purpose:
- Identify differences from that expected for “normal” development
- Find the best explanation(s) for these differences
- Determine the strengths/vulnerabilities in the child’s system

Methods:
- Interview is the primary tool for most psychiatric disorders
- Need to talk with child/adolescent, with family/caretakers and with other collateral sources
  - Therapist
  - School personnel
  - Other parties (e.g. PO, family preservation, foster care, others)
Assessment

- **Methods:**
  - Standardized tools for some disorders
    - Depression
      - Children’s Depression Inventory
      - Reynolds Adolescent Depression Inventory
    - Anxiety
      - SCARED (Screen for Child Anxiety-Related Emotional Disorders)
      - Yale Brown Obsessive Compulsive Scale
Assessment

Methods:

- Standardized tools for some disorders
  - Attention Deficit Hyperactivity Disorder
    - Conner’s Parent and Teacher scales
    - Continuous Performance Testing
    - ACTeRS (ADD-H: Comprehensive Teacher’s Rating Scale) parent and teacher version
    - Vanderbilt Scales
  - Autism
    - Gilliam Autism Rating Scale (GARS)
    - Autistic Diagnostic Observation Schedule (ADOS)
Assessment

- **Methods:**
  - Tests done by others (psychologists)
    - Psychoeducational testing
    - Neuropsychological testing
    - Projective testing techniques
    - Personality inventories
  - Information from others
    - Health history
    - Prior mental health assessments and treatment
    - School records
    - Child welfare case records
Assessment

- **Outcome:**
  - Understanding of the problems that the child or adolescent faces
    - DSM diagnosis terms
    - Functional terms
  - Understanding the resources/strengths that are available
  - Understanding who is on the team, what roles will be, thinking through short-, medium- and long-term goals
Assessment

▪ What it can’t do:
  ▪ Magic ball to tell the “truth” when there are multiple versions of events
  ▪ Be 100% sure 100% of the time
    • Some problems/diagnoses evolve in presentation
    • We still have lots to learn, so controversy
  ▪ Gain the clearest understanding without access to as much of the data as possible
Assessment

- How to make it work for the child and family:
  - Make the question clear: why assessment? why now? what do we want from the psychiatrist?
  - Get as much collateral information as possible before assessment
  - Let the family know what to expect
    - How much time for the assessment
    - What is the relationship between psychiatrist and rest of the team
      - How might getting the assessment help child/family
  - Empower child and family to ask questions!!!!
  - Feel free to ask your questions!!!
Psychotropic Medications
Attention Deficit Hyperactivity Disorder

- Problems with attention, focus, concentration, planning, activity, impulse control
- Present in multiple settings
  - Affects academic and social functioning in school
  - Affects task completion at home
Attention Deficit Hyperactivity Disorder

- Psychostimulants
  - Types
    - Methylphenidate (Ritalin, Ritalin LA, Metadate ER, Metadate CD, Concerta, Focalin, Daytrana patch, Quillivant)
    - Amphetamine (Dexedrine, Adderall, Vyvanse)
  - What to expect

<table>
<thead>
<tr>
<th>Targets/Timing</th>
<th>Side effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention, hyperactivity, impulsivity</td>
<td>Decreased appetite</td>
</tr>
<tr>
<td>Generally quick onset</td>
<td>Jitteriness/irritability</td>
</tr>
<tr>
<td>Short acting – hours/day</td>
<td>Increased compulsive behavior</td>
</tr>
<tr>
<td></td>
<td>Potential tic movements</td>
</tr>
<tr>
<td></td>
<td>Mild increases in blood pressure/pulse</td>
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Attention Deficit Hyperactivity Disorder

- **Norepinephrine Reuptake Inhibitor**
  - **Types**
    - Atomoxetine (Strattera)
  - **What to expect**

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<td>Attention, hyperactivity, impulsivity</td>
<td>Decreased appetite</td>
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<tr>
<td>Impact within days/weeks</td>
<td>Jitteriness</td>
</tr>
<tr>
<td>Can titrate to 1.4mg/kg</td>
<td>Sedation/fatigue or insomnia</td>
</tr>
<tr>
<td></td>
<td>Liver inflammation (low risk)</td>
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<td></td>
<td>Boxed warning re: suicidal thoughts</td>
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Attention Deficit Hyperactivity Disorder

- Alpha agonists
  - Types:
    - clonidine (Catpres, Kapvay), guanfacine (Tenex, Intuniv)
- What to expect

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<td>Attention, hyperactivity, impulsivity</td>
<td>Blood pressure drop (lightheadedness)</td>
</tr>
<tr>
<td></td>
<td>Note – should not stop suddenly</td>
</tr>
<tr>
<td>Can titrate every 5-7 days</td>
<td>Sedation</td>
</tr>
<tr>
<td>Extended release 1-2 times daily</td>
<td>Irritability</td>
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Attention Deficit Hyperactivity Disorder

- Miscellaneous agents (not FDA approved)
  - bupropion (Wellbutrin) (dopamine)
  - venlafaxine (Effexor) (serotonin and norepinephrine)
  - tricyclic antidepressants (norepinephrine)

- Used to improve core/target symptoms
- Things to watch for:
  - Bupropion – agitation
  - Venlafaxine – mild increases in blood pressure
  - Tricyclic medications – may need to monitor level, ECG
Attention Deficit Hyperactivity Disorder

- Other Treatment: needs to focus on environment too, though medication usually required
  - Behavior management
  - Problem solving
  - Parent training

- Should consider as the first thing in little kids (3-6)
Depressive and Anxiety Disorders

Depressive Disorders
- Emotional symptoms
  - Sad, irritable
- Cognitive symptoms
  - Negative thinking
  - Concentration problems
- Body symptoms
  - Tired
  - Too much/little sleep
  - Too much/little eating

Anxiety Disorders
- Emotional symptoms
  - Worry, fear
- Cognitive symptoms
  - What if
  - Fears
- Body symptoms
  - Body tense
  - Shaky
  - sweaty
Depressive and Anxiety Disorders

- Selective Serotonin Reuptake Inhibitors
  - Fluoxetine (Prozac)*^ - Paroxetine (Paxil)
  - Fluvoxamine (Luvox)^ - Sertraline (Zoloft)^
  - Citalopram (Celexa) - Ecitalopram (Lexapro)*
  - approved in kids for depression ^ approved in kids for Obsessive Compulsive Disorder

- What to expect

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<td>Depressive symptoms (individual)</td>
<td>Nausea, vomiting, pain, gas</td>
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<tr>
<td>Anxiety symptoms (individual)</td>
<td>Sedation</td>
</tr>
<tr>
<td>Can take weeks to see full impact</td>
<td>Jittery/restlessness</td>
</tr>
<tr>
<td>Dose varies from person to person</td>
<td>Boxed warning re: suicidal ideation</td>
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<td>Potential sexual side effects</td>
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Depressive and Anxiety Disorders

- Mixed NE/5-HT Reuptake Inhibitors
  - venlafaxine (Effexor) (Pristiq – desvenlafaxine)
  - duloxetine (Cymbalta) note: approved for pediatric generalized anxiety

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Depressive and Anxiety Disorders

- Other medications
  - mirtazapine (Remeron) – Note: not FDA approved for kids
  - vortioxetine (Trintellix) – Note: not FDA approved for kids
  - bupropion (Wellbutrin) – Note: note FDA approved for kids
  - vilazodone (Viibryd) – Note: not FDA approved for kids
  - Clomipramine (Anafranil) – Note: approved for pediatric OCD

- What to expect:
  - Targets/Timing
    - Depressive symptoms (individual)
    - Anxiety symptoms (individual)
    - Can take weeks to see full effect
    - Dose varies from person to person
  - Side Effects
    - Nausea (both medications)
    - Sedation (mirtazapine)
    - Increased appetite (mirtazapine)
    - Constipation (vortioxetine)
Depressive and Anxiety Disorders

- Short-acting anti anxiety medications:
  - Anti-histamines - Benadryl (diphenhydramine), Vistaril/Atarax (hydroxyzine)
    - Can be used as needed or routine (usually 3-4x a day)
    - Can be sedating, also can cause dry mouth
    - Not FDA approved – more use lately
  - Benzodiazepines - lorazepam, clonazepam, alprazolam
    - Sometimes used very short term (e.g. labs or medical procedure)
    - Carry risk of abuse/dependence
Depressive and Anxiety Disorders

- Treatment with psychotherapy has a strong evidence base, could argue for use before medications unless severe symptoms
  - Cognitive Behavioral Therapy (CBT)
  - Support and Problem solving
  - Education for kids, families and other supports
- For trauma-related symptoms (examples):
  - Trauma-Focused CBT
  - Attachment, Self Regulation and Competency (ARC)
  - Child-Parent Psychotherapy
  - Parent Child Interaction Therapy
Bipolar Disorder

- Mood symptoms include both depression and mania (elevated mood, increased energy, impulsive behavior, decreased sleep)
- Can present in multiple patterns
  - Duration of mood episodes
  - Frequency of mood episodes
- Controversy in terms of how common it is
- Biological reasons not fully understood
Bipolar Disorder

- Lithium – note: FDA approved for bipolar disorder in teenagers
  - What to expect:

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<tr>
<td>Reduce depression and manic episodes</td>
<td>Thirst, increased drinking</td>
</tr>
<tr>
<td>Days to weeks to see effect</td>
<td>Urinary incontinence</td>
</tr>
<tr>
<td>Dosing determined partly by blood level</td>
<td>Mild/fine tremor</td>
</tr>
<tr>
<td>Safety is an issue – monitor carefully</td>
<td>Nausea</td>
</tr>
<tr>
<td>Small range between therapeutic and toxic</td>
<td>Interfere with thyroid function</td>
</tr>
<tr>
<td></td>
<td>Toxicity (confusion, coarse tremor, unsteady gait, kidney, heart, brain)</td>
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Bipolar Disorder

- Anticonvulsants – note: none approved by FDA for children/adolescents for mood disorders
  - valproate (Depakote)^ - carbamazepine (Tegretol)^
  - lamotrigene (Lamictal)^ - gabapentin (Neurontin)
  - topiramate (Topamax) - oxcarbazapine (Trileptal)

^FDA approved in adults

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<td>Sedation</td>
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<tr>
<td>Days to weeks to see effect</td>
<td>Tremor</td>
</tr>
<tr>
<td>Dosing determined partly by blood level</td>
<td>Nausea</td>
</tr>
<tr>
<td>Larger therapeutic/toxic window</td>
<td>Irritability</td>
</tr>
<tr>
<td></td>
<td>Lower blood cells (white cells, platelets)</td>
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<td></td>
<td>Liver inflammation</td>
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Bipolar Disorder

- Treatment: **important** to add other elements to medication treatment (some really challenging in teens/young adults)
  - Stress management and reduction
  - Avoid substance use!
  - Maintain regular sleep schedule
  - Work to maintain adherence to medication with support and management of side effects
Psychotic Disorders (Schizophrenia and others)

- Characterized by loss of reality testing
  - Delusions - Hallucinations
- Characterized by additional problems
  - Lack of motivation - Limited flexibility
  - Emotionally flat
- Leading hypotheses relate to excess dopamine activity
- Not common in kids, usually early adult onset
Psychotic Disorders (Schizophrenia and others)

- **Antipsychotic medications** (some also for peds bipolar)
  - **Types**
    - Abilify^** (aripiprazole)
    - Geodon (ziprasidone)
    - Invega^ (paliperidone)
    - Zyprexa^* (olanzapine)
    - Haloperidol^*
    - Rexulti (brexiprazole)
    - Vraylar (cariprazine)
    - Seroquel^* (quetiapine)
    - Risperdal^** (risperidone)
    - Saphris* (asenapine)
    - Clozaril (clozapine)
    - Latuda (lurasidone)
    - Fanapt (iloperidone)
    - Lumateperone (Caplyta)

Note: ^ FDA approved for Schizophrenia, *Bipolar, **autism-aggression
Psychotic Disorders (Schizophrenia and others)

- **What to expect**

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<tr>
<td>Reduced hallucinations/delusions*</td>
<td>Headache</td>
</tr>
<tr>
<td>Reduced aggression</td>
<td>Nausea</td>
</tr>
<tr>
<td>Reduced depression/mania</td>
<td>Sedation</td>
</tr>
<tr>
<td></td>
<td>Increased appetite/weight gain (monitor with height, weight, labs and educate)</td>
</tr>
<tr>
<td>*variability in “negative” psychosis</td>
<td>Restlessness</td>
</tr>
<tr>
<td></td>
<td>Tremor</td>
</tr>
<tr>
<td></td>
<td>Uncontrolled movements (monitor with Abnormal Involuntary Movement Scale)</td>
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Psychotic Disorders (Schizophrenia and others)

- Treatment: needs to include other supports
  - Education about the disorder, what to expect over time
  - Likely to need part time work because of cognitive limitations
  - Supportive therapy, reality checks
Eating Disorders (Anorexia, Bulimia, Binge)

- **Key characteristics**
  - Excessive concern about foods, calories, body shape/size
  - Compensating behaviors to correct worries and reduce or maintain weight

- **Treatment**
  - Mainstay is psychotherapy/education, nutritional support, family involvement
  - When more severe medications for anxiety
    - Benzodiazepines
    - Antipsychotic medications (e.g. olanzapine)
Substance Use Disorders

- Main treatment is psychotherapeutic, support (e.g. 12-step programs)
- Medication Assisted Treatments not yet FDA approved in youth
  - Methadone
  - Naltrexone
    - Narcan – acute treatment for overdose
    - Ongoing treatment
  - Buprenorphine
  - Buprenorphine/Naltrexone (Suboxone)
  - Disulfuram (Antabuse)
  - Acamprosate (Campral)
Managing Treatment Challenges
Managing Treatment Challenges

- Adherence
  - Youth are impatient!
  - They may or may not listen to preparatory education about:
    - Time for medications to take effect (days-weeks)
    - Time for side effects (hours-days)
  - If parents are on board, work with them
  - If parents are not on board – may need to go back to problem solving
  - Important to provide psychoeducation about development and child reliability
Managing Treatment Challenges

- **Pregnancy**
  - Need to think about in any female of child-bearing age
  - Best to have some discussions in advance when youth are on medications
    - What if......
    - Can this be prevented at least for now
  - If pregnant
    - Potential impacts to mom/baby
      - On medication
      - Off medication
    - If taper or discontinue – other supports and close monitoring
Managing Treatment Challenges

- Aggression – the emotional/behavioral equivalent of fever
  - Need to try and understand underlying cause(s) and address these per current best practice standards (e.g. Blader et al. JAACAP 60(2): 236-251. 2021)
  - If necessary to treat symptomatically
    - Evidence for 2nd generation antipsychotics
    - Need to include monitoring (metabolic and movement impacts)
    - Need to use similarly to acetaminophen for during viral/bacterial pharyngitis
      - Treat underlying causes
      - Treat behaviorally
      - Re-assess ongoing need
Summary

- Psychotropic medications are one important tool in addressing range of challenging behaviors in children
- Other interventions/services/supports are necessary
- Comprehensive assessment and understanding of diagnosis and other factors is important in any treatment approaches
- Will need communication with youth, family and other systems even in straightforward situations – even more when things get complex.