# TREATMENT OF ANXIETY AND DEPRESSION IN CHILDREN

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2/1/2020

TOMA MIDWINTER CONFERENCE

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## DISCLOSURES

- I have no relevant financial relationships or affiliations with commercial interests to disclose.

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# EXPERIMENTAL OR OFF-LABEL DRUG/THERAPY/DEVICE DISCLOSURE

- I will be discussing experimental or off-label drugs, therapies and/or devices that have not been approved by the FDA.

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# OBJECTIVES

- Discuss the shortage of Child Adolescent Psychiatrists in America
- Describe the presentation of depression and anxiety symptoms in children
- Discuss Evidence Based Practices for treatment of Anxiety and Depression in pediatric population

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# THE SAD TRUTH


- Prevalence of mental and/or behavioral health disorders is the pediatric population
  - 1:7 between the ages of 2-8
  - 1:5 between the ages of 9-17
- Number of Child and Adolescent Psychiatrist
  - <8,000
  - 43 states have a *severe shortage*

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# SPECTRUM OF MENTAL HEALTH SERVICES

- Bachelors/Masters level
  - Licensed Professional Counselors, Licensed Clinical Social Workers, Master's of Social Work, Licensed Alcohol and Drug Counselors, Marriage and Family Therapist
- Doctoral level
  - PhD, PsyD, and EdD
- Physicians
  - Child and Adolescent Psychiatrist, Developmental and Behavioral Pediatricians, and Primary Care Physicians

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# BACHELORS AND MASTERS LEVEL

- Licensed Professional Counselors, Licensed Clinical Social Workers, Master's of Social Work, Licensed Alcohol and Drug Counselors, Marriage and Family Therapist
- Provide counseling and therapy services
- Located in Community Mental Health Agencies, Schools, Private Practice, Doctor Offices

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# DOCTORAL LEVEL


- PhD, PsyD, and EdD
  - All do a diagnostic evaluation and provide therapy
- PhDs and PsyDs
  - Provide psychological testing
  - Evaluations for Autism and developmental disorders
- Located in academic settings, Community Mental Health Agencies, Private Practice, Doctor Offices

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# PHYSICIANS

- Child and Adolescent Psychiatry, Developmental and Behavioral Pediatrics, and Primary Care
  - All can provide medication management
- Child and Adolescent Psychiatrist
  - Psychiatric Evaluations
  - Evaluations for Autism
  - Therapy
- Developmental and Behavioral Pediatrics
  - Evaluations for Autism and developmental disorders

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# ROLE OF PRIMARY CARE PHYSICIANS IN MENTAL/BEHAVIORAL HEALTH

- To feel comfortable treating uncomplicated anxiety and depression
- Directing families to the appropriate services for complicated cases and to make referrals when necessary

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# DEPRESSION

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## CASE OF MARY'S DEPRESSION

Mary Smith is a 12 year old white female with no past psych history brought in by her mother presenting to clinic for new onset of depressive symptoms. She states she is not depressed "because I'm not sad." However, her mother notes Mary has been isolating to her room, withdrawing from friends, and there has been a recent drop in her grades. Mary admits she has been "pretty snappy lately," with her mother and friends. "I just want to be left alone."

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# MAJOR DEPRESSIVE DISORDER

- Sad, irritable mood, or anhedonia for 2 weeks duration
- At least 5 of the following symptoms:
  - Social withdrawal
  - Worthlessness
  - Guilt
  - Suicidal thoughts/behavior
  - Increased/decreased sleep
  - Decreased motivation
  - Decreased concentration
  - Increased/decreased appetite
  - Rarely psychotic symptoms
- Change in functioning in multiple settings

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# DEPRESSION EPIDEMIOLOGY

- Pre-pubertal children: 1-2%
- Adolescents: 11%
- 3:1 female to male after onset of puberty

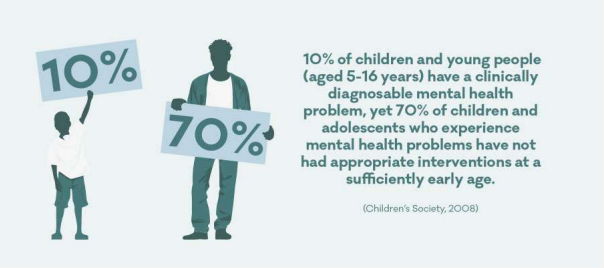


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**Table E.1.1 Differences in the presentation of depression according to age. These symptoms can all be present at any age but are more common in the age group specified.**

| Pre-pubertal children | Adolescents | Adults |
|---|---|---|
| • Irritability (temper tantrums, non-compliance)<br>• Affect is reactive*<br>• Frequently comorbid with anxiety, behavior problems, and ADHD<br>• Somatic complaints | • Irritability (grumpy, hostile, easily frustrated, angry outbursts)<br>• Affect is reactive*<br>• Hypersomnia<br>• Increased appetite and weight gain<br>• Somatic complaints<br>• Extreme sensitivity to rejection (e.g., falsely perceived putdown or criticism) resulting, for example, in difficulties maintaining relationships. | • Anhedonia<br>• Lack of affective reactivity<br>• Psychomotor agitation or retardation<br>• Diurnal variation of mood (worse in the morning)<br>• Early morning waking |

*Ability to be momentarily cheered up in response to positive events (e.g., visit by peers).

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# TREATMENT OF ADOLESCENT DEPRESSION STUDY (TADS)

- 12 week double blind RCT studying patients ages 12-17 years old across 13 academic and community sites in the US
- Evaluated 4 treatments
  - Fluoxetine plus CBT
  - Fluoxetine alone
  - CBT alone
  - Placebo
- Moderate to severe depression, boys to girls, younger and older teens, fair minority representation, and variability in socioeconomic backgrounds

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# TREATMENT OF ADOLESCENT DEPRESSION STUDY (TADS)

- Effectiveness
  - 71.0% for the combination of fluoxetine and CBT
  - 60.6% for fluoxetine alone
  - 43.2% for cognitive-behavioral psychotherapy alone
  - 34.8% for placebo
- Combination treatment had a greater impact on symptoms of depression and on a reduction in harm-related adverse events relative to patients treated with fluoxetine alone

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# SCALES FOR DEPRESSION

- Columbia Depression Scale, Parent and Teen
- Center for Epidemiological Studies Depression Scale for Children (CES-DC)
- **Patient Health Questionnaire (PHQ-9), Parent and Teen**
- MFQ: Mood and Feelings Questionnaire
- DSRS: Depression Self-Rating Scale

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# EVIDENCE BASED TREATMENT FOR DEPRESSION

- FDA Approved Treatment for Depression
  - **Fluoxetine** approved for ages 8 years old and over
    - Best studied with strongest efficacy
  - **Escitalopram** approved for ages 12 years old and over
- Psychotherapy
  - Cognitive Behavioral Therapy
  - Intrapersonal Therapy


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# WHICH ANTIDEPRESSANT?

- Two considerations: effectiveness and safety
  - SSRIs are safest
  - Fluoxetine is most effective
- Begin fluoxetine
  - Start with 10mg of fluoxetine
  - Increase to 20mg after one week
  - 20mg for pre-pubertal children
  - 30 or 40mg for adolescents
- If not fluoxetine try another SSRI (e.g., sertraline or escitalopram)
- Continue treatment 6-12 months after recovery


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# MANAGEMENT OF DEPRESSIVE EPISODE

- Mild
  - supportive management, CBT/IPT
  - If no response then refer to CBT/IPT, or start antidepressant medication
- Moderate
  - supportive management, CBT/IPT or medication
  - If no response then add medication
- Severe
  - CBT/IPT and medication
- Psychotic depression
  - CBT/IPT and medication and second generation antipsychotic drug

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# WHAT CAN WE DO FOR MARY?

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# WHAT CAN WE DO FOR MARY?

- Have patient and her mother complete screening scales to determine severity of symptoms
- Refer to therapy CBT vs. IPT
- Recommend lifestyle changes, sleep hygiene, and exercise.
- Light therapy if seasonal affective disorder – 10,000 lux 30 mins a day
- Evaluate further for risk factors ie, family history, self harming, family or peer h/o suicide, severity of suicidal ideation.
- Start medication management
- Combination therapy with medication management and psychotherapy
- After 2 failed medication trials refer to Child/Adolescent Psychiatry

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# ANXIETY

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# CASE OF MIGUEL'S ANXIETY

- Miguel Hernandez is a 6 year old Hispanic male with a history of anxiety presenting to clinic with his grandmother, who is guardian, for sleep problems and irritability. Grandmother reports Miguel struggles with worrying about his mother who is away serving overseas in the Army. Miguel has a hard time sleeping at night due to his worry. He has been even crankier than usual over the past 9 months.

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# CASE OF MIGUEL'S ANXIETY

- Miguel has been engaged in therapy for the past 6 months, with some improvement, however he has had a hard time controlling his anger and frustration in school. As a result his conduct scores have decreased and his teachers are voicing concern. His grandmother is also worried because Miguel has started to complain about having nightmares.

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# ANXIETY

- Internalizing disorder
  - Impacts the child more than anyone else.
- Avoidance = core feature
  - fearfulness, distress or shyness
- Expectation of threat
  - Worry
  - Rumination
  - Anxious anticipation
  - Negative thoughts
- Physical complaints
- Difficulty with sleep

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# COMMON ANXIETY DISORDERS

- **Generalized Anxiety Disorder**
- **Social Anxiety Disorder**
- Separation Anxiety
- Selective Mutism
- Specific Phobia
- Panic Disorder
- Agoraphobia
- Obsessive Compulsive Disorder

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# GENERALIZED ANXIETY DISORDER


- Impairing worry about multiple situations
- At least 6 months, most days
- Worry is difficult to control and interferes with completing tasks or enjoy activities
- One of the following: difficulty falling or staying asleep, fatigue, trouble focusing, muscle tension, headaches, or irritability
- Anxieties are regarding everyday things, anticipated changes, dangerous situations, can be fantastical, or extreme

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# SOCIAL ANXIETY DISORDER

- Excessive and impairing fear of being negatively evaluated by others
- Accompanied by either avoidance of social situations **OR** severe discomfort while enduring social settings
- Can be evidenced by crying, tantrums, clinging, shrinking, or failing to speak in social settings.
- 6 months or more

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# ANXIETY EPIDEMIOLOGY

- Anxiety disorders are the most common mental health disorder
- 32% lifetime prevalence
  - Generalized Anxiety Disorder 2%
  - Social Anxiety Disorder 9%
  - Specific Phobia 20% (highest rate)
- More common in females 2:1
- Comorbidity
  - Much overlap between various anxiety disorders
  - Children with GAD have 59% comorbidity with mood disorders
  - Children with GAD have 66% comorbidity with other anxiety disorders

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# AGE OF ONSET

- Some of the earliest disorders to appear
- Begin by mid childhood to mid adolescence
- Average ages of onset:
  - Animal Phobias: 6-7 yrs
  - Separation Anxiety: 7-8 yrs
  - GAD: 10-12 yrs
  - Social Anxiety Disorder: 11-13 yrs
  - OCD: 13-15 yrs
  - Panic Disorder: 22-24 yrs

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# CHILD/ADOLESCENT ANXIETY MULTIMODAL STUDY (CAMS)

- Largest 12 week RCT studying patients 7-17 years old investigating treatments for anxious youth
- Evaluated 4 treatments:
  - Sertraline
  - CBT
  - Combined Sertraline and CBT
  - Placebo
- DSM IV criteria for GAD, Social Anxiety, Separation anxiety

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# CHILD/ADOLESCENT ANXIETY MULTIMODAL STUDY (CAMS)

- Relapse rate at week 12
  - 68% with combined treatment with Sertraline and CBT
  - 46% with Sertraline
  - 46% with CBT
  - 24% with placebo
- Take home points
  - Severe anxiety – combination treatment usually needed
  - Mild anxiety – consider CBT before medication management
  - Treatment requires higher doses of medication. **Goal dose 100-150mg Sertraline.**

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# SCALES FOR ANXIETY

- **Screen for Child Anxiety Related Disorders (SCARED)**
  - **Parent and Child Report**
- Multidimensional Anxiety Scale for Children (MASC 2)
- Spence Children's Anxiety Scale (SCAS)
- Fear Survey Schedule for Children Revised (FSSC-R)

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# WHAT CAN WE DO FOR MIGUEL?

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# WHAT CAN WE DO FOR MIGUEL?

- Confirm patient is engaged in CBT therapy
- Evaluate further for risk factors ie, family history,
  - Recommend therapy for parent. ANXIETY RUNS IN FAMILIES
- Recommend lifestyle changes, sleep hygiene, and exercise.
- Start medication management
- Combination therapy with medication management and psychotherapy
- After 2 failed medication trials refer to Child/Adolescent Psychiatry

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# EVIDENCE BASED TREATMENT FOR ANXIETY

- **FDA Approved Treatment for OCD**
  - Sertraline - ages 6 and older
  - Fluoxetine - ages 7 and older
  - Clomipramine - ages 10 and older
  - Fluvoxamine - ages 8 and older
- **FDA Approved Treatment for GAD**
  - Duloxetine - ages 7 and older
- **Psychotherapy**
  - CBT 12-20 weekly sessions


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# ANXIETY AND DEPRESSION

- ✓Referral to LCSW, LPC, etc for:
  - ✓For individual or psychodynamic therapy due to psychosocial factors complicating her depression and anxiety
  - ✓For supportive therapy related to learning and managing coping skills, and providing support

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# ANXIETY AND DEPRESSION

- ✓Referral to PhD, PsyD if needed
- ✓Referral to Child Psychiatry/Continuation with PCP for:
  - ✓Consider medication adjustments/changes
  - ✓Consider evaluation for safety

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# ANTIDEPRESSANTS

Common antidepressants and dosages for you to be comfortable using include:

✓Prozac (fluoxetine): 10-60 mg daily
✓Lexapro (escitalopram): 5-20 mg daily

✓Zoloft (sertraline): 25-200 mg daily

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# ADVERSE SIDE EFFECTS OF SSRI'S

- Suicidality*
- Manic switch
- Akathisia
- Agitation
- Irritability
- Disinhibition
- Nightmares/sleep disturbances
- Gastrointestinal
- Weight gain
- Sexual
- Bleeding
- Possible congenital
- Withdrawal syndrome
- Serotonin Syndrome

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# FOLLOW UP RECOMMENDATIONS

- Follow up monthly until symptoms significantly improve
- Make sure family continues to engage in therapy
  - Family therapy
  - Coping skills
  - Supportive
- Transition to 6 weeks, q2 months, q3 months.
- Consider taper after 12 months of STABLE SX.


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# BLACK BOX WARNING

**PROZAC®**
**FLUOXETINE CAPSULES, USP**
**FLUOXETINE ORAL SOLUTION, USP**
**FLUOXETINE DELAYED-RELEASE CAPSULES, USP**

**WARNING**

**Suicidality and Antidepressant Drugs — Antidepressants increased the risk compared to placebo of suicidal thinking and behavior (suicidality) in children, adolescents, and young adults in short-term studies of major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of Prozac or any other antidepressant in a child, adolescent, or young adult must balance this risk with the clinical need. Short-term studies did not show an increase in the risk of suicidality with antidepressants compared to placebo in adults beyond age 24; there was a reduction in risk with antidepressants compared to placebo in adults aged 65 and older. Depression and certain other psychiatric disorders are themselves associated with increases in the risk of suicide. Patients of all ages who are started on antidepressant therapy should be monitored appropriately and observed closely for clinical worsening, suicidality, or unusual changes in behavior. Families and caregivers should be advised of the need for close observation and communication with the prescriber. Prozac is approved for use in pediatric patients with MDD and obsessive compulsive disorder (OCD). (*See* WARNINGS, Clinical Worsening and Suicide Risk, PRECAUTIONS, Information for Patients, *and* PRECAUTIONS, Pediatric Use.)**

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# BLACK BOX WARNING

- Issued in 2004 by FDA
- The data showed a small increase in suicidal thought and behaviors
  - from **2% in the placebo groups to 4% in the medication groups**, when data from all trials for all indications were combined.
- There were ***no completed suicides*** in any of the studies conducted on antidepressant medications.
- The FDA issued the warning **despite evidence** that increasing prescriptions for SSRI antidepressant medications was **clearly correlated with decreasing rates of actual suicide, and use of antidepressant medications was not associated with suicide in any prior studies.**

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# BLACK BOX WARNING

- They found **prescription rates decreased 18-20%** in the aftermath of the FDA actions.
- They also found a shift in care from "generalists" to psychiatric specialists.
- Family medicine physicians and pediatricians **were less likely to prescribe antidepressant medications.**
- In 2004, rate of **suicide in children and adolescents up to age 19 increased 18%,** from 2.2 to 2.6 per 100,000 (Hamilton et al., 2007).
- This is the first increase in over 10 years.

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# BARRIERS TO CARE

- Shortage of child psychiatrists and allied professionals
- Few training programs
- Stigma
- Few medications
- Minimal inpatient facilities

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# TAKE HOME POINTS

- Primary care physicians play a vital role in addressing uncomplicated anxiety and depression in pediatrics
- Assess for severity of symptoms and refer to therapy or initiate medication management
- Utilize free scales to assess for severity of symptoms
- Use FDA approved medications for treatment of anxiety and depression

  ***** Give medications 4-8 weeks to evaluate response *****
- Refer to Child Psychiatry if no significant improvement

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