Identification and Treatment of Adolescent Anxiety and Depression – NA/AN/NH/PI

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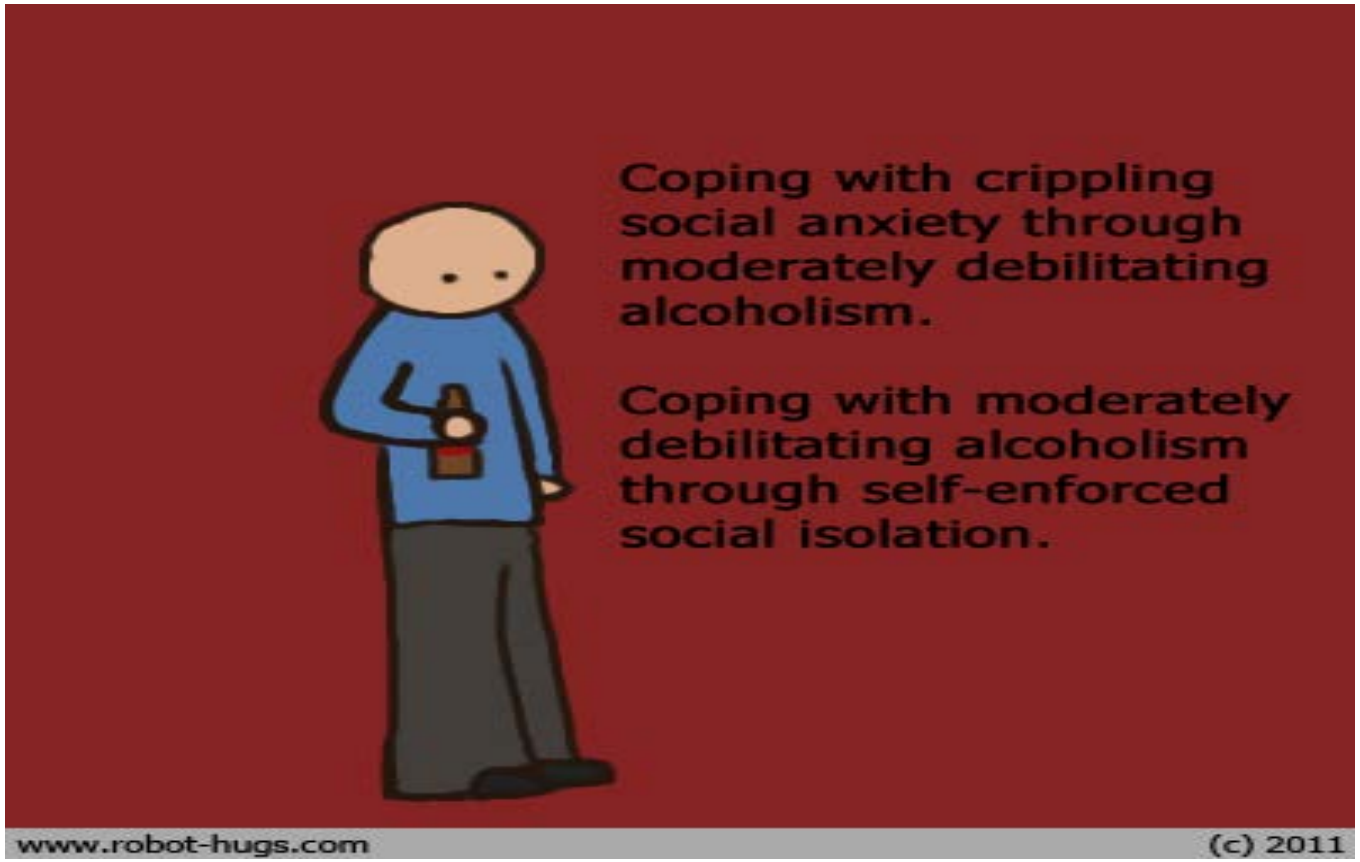
Epigenetic Factors of Native Populations Mental Health Issues

- High level of epigenetic contributors to Mental Health issues
  - 1.5X higher serious psychological distress than general population
  - 2X more likely to be unemployed
  - 2.5X rate of victimization of whites
  - 3X less likely to have insurance as whites


Coping with crippling social anxiety through moderately debilitating alcoholism.
Coping with moderately debilitating alcoholism through self-enforced social isolation.
www.robot-hugs.com
(c) 2011

Anxiety Statistics

- Life prevalence of any anxiety disorder 28.8%
- Onset usually childhood or adolescence
- 50% of affected adult first symptoms before age 11 yrs.
- Worldwide prevalence of Child/Adolescent Anxiety DO 6.5%

Prevalence of Anxiety Disorders in Adolescents

• Separation Anxiety	2-12.9%
• Panic Disorder	
• Agoraphobia	4.5%
• Specific phobia	2.6-9.1%
• Social Anxiety	1.6%
• Acute Traumatic Stress Disorder	
• Post Traumatic Stress Disorder	6.3%
• Generalized Anxiety Disorder	2.9-4.6%

Adolescent Anxiety Symptomatology

Behavioral

Cognitive

Physical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Major Depressive Disorder in Children

Persistent Depressive Disorder affects approximately:

- 3% age 6-12 years
- 6% age 13-18 years

Major Depression….

- 50% Adolescents with depression diagnosed before adulthood
- 70% Depression episode #1 recurrence within 5 years
- Male:Female 1:1 in childhood
- Male:Female 1:2 in adolescence
- Male:Female 1:3 at onset of puberty

Native Youth Depression Comparison

- 2013 CDC YRBS Data
  - 39% Native American
  - 37% Latino
  - 29% Asian
  - 28% African American
  - 27% Caucasian

Risk List for Adolescent Depression

- Comorbid psychiatric/medical illness
- Parents/siblings with depression
- Trauma exposure/Family/Relationship/Community
- LGBTTQQAA/Sexual abuse
- Substance/Alcohol use
- Stressful life events i.e. breakup with boy/girl friend
- School failure/dropout/pressure
- Bullying/Cyberbullying/Social media
- Sleep Deprivation

Sleep Deprivation

- 9.5-10 hours required during adolescence for normal growth and function (More for growth spurt)
- Females more vulnerable to sleep deprivation depression than males
- Leads to weight gain/obesity
- Decreased ability to regulate negative emotions, worsened mood
- Males had stronger suicidality association

Sleep Deprivation can lead to…

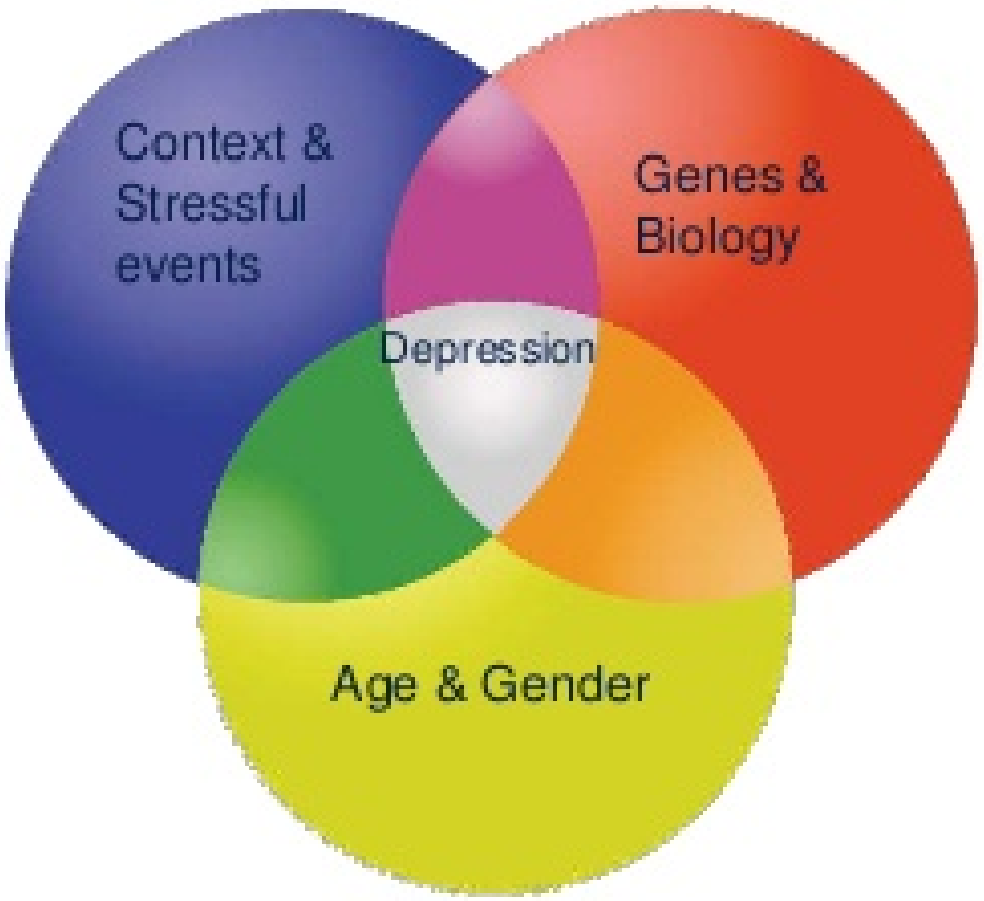
- Anxiety
- Irritability
- Poor Emotional Regulation
- Poor Concentration
- Fatigue
- Craving Carbohydrates
- Oppositionality
- Sadness
- Tardiness/Truancy
- Poor Motivation

Common Symptoms of Depression in Adolescents

- Insomnia
- Poor concentration
- Somatic complaints:
  - headaches
  - stomachaches
- Anxiety
- Binge eating – especially at night
- Self harm
- Substance abuse
- Risk taking
- Fatigue
- Irritability
- Worry
- Social Withdrawal

Screening for Anxiety & Depression

No single biomarker has been found for depression



We rely on self-rating and assessment from parents, teachers and clinicians

UCSF

When to screen?

- Broad screening
  - Every visit
- Psychosocial risk screening
  - Every visit
- Specific measure screening
  - Positive indicators to broad screening or risk screening
  - Gut instinct should never be ignored

Risk Factor Screening

- Treatment history
- Trauma history
- Family history
- School issues
- Contagion suicide
- Sexual issues/Pregnancy
- Substance abuse
- Changes in behavior
- Social pressures/Bully
- Community pressures
- Relationship issues
- Sexuality
- Adoption/Foster Care

Some Screening Tools

Depression

- Beck Depression Inventory
- Children's Depression Inventory 2 (CDI – 2)
- Center for Epidemiological Studies Depression Scale for Children (CES-DC)
- Patient Health Questionnaire – 9
- Mood Disorders Questionnaire

Anxiety

GAD – 7 (Generalized Anxiety)

Social Phobia Inventory (SPIN)

Children's Yale-Brown Obsessive Compulsive Scale (CYBOCS)

Shortcut for Diagnosing Depression

- **S** Sleep disturbance/Somatic complaints
- **I** Loss of Interest/Pleasure
- **G** Guilt
- **E** Energy decrease
- **C** Concentration loss
- **A** Appetite Change/Agitation
- **P** Psychomotor retardation/social withdrawal
- **S** Suicidality/High risk behavior

Strengths and Difficulties Questionnaire

- Total difficulties
- Emotional symptoms
- Conduct problems
- Hyperactive score
- Peer problems
- Prosocial behavior scale

- Parent and Teacher forms
- Self-report form for Adolescents
- Online scoring

American Psychiatric Association DSM - 5

- Available free for clinical use
- Rapid clinical screening and treatment guidance
- Child, Adolescent and Adult screeners
- Cultural considerations section
- https://www.psychiatry.org/psychiatrists/practice/dsm/educational-resources/assessment-measures

Frequency of Use of Screeners

- To track change over time, complete at regular intervals

- Consistently high scores in a particular domain may indicate significant/problematic symptoms needing further assessment, treatment and follow-up


And then... there was nothing.
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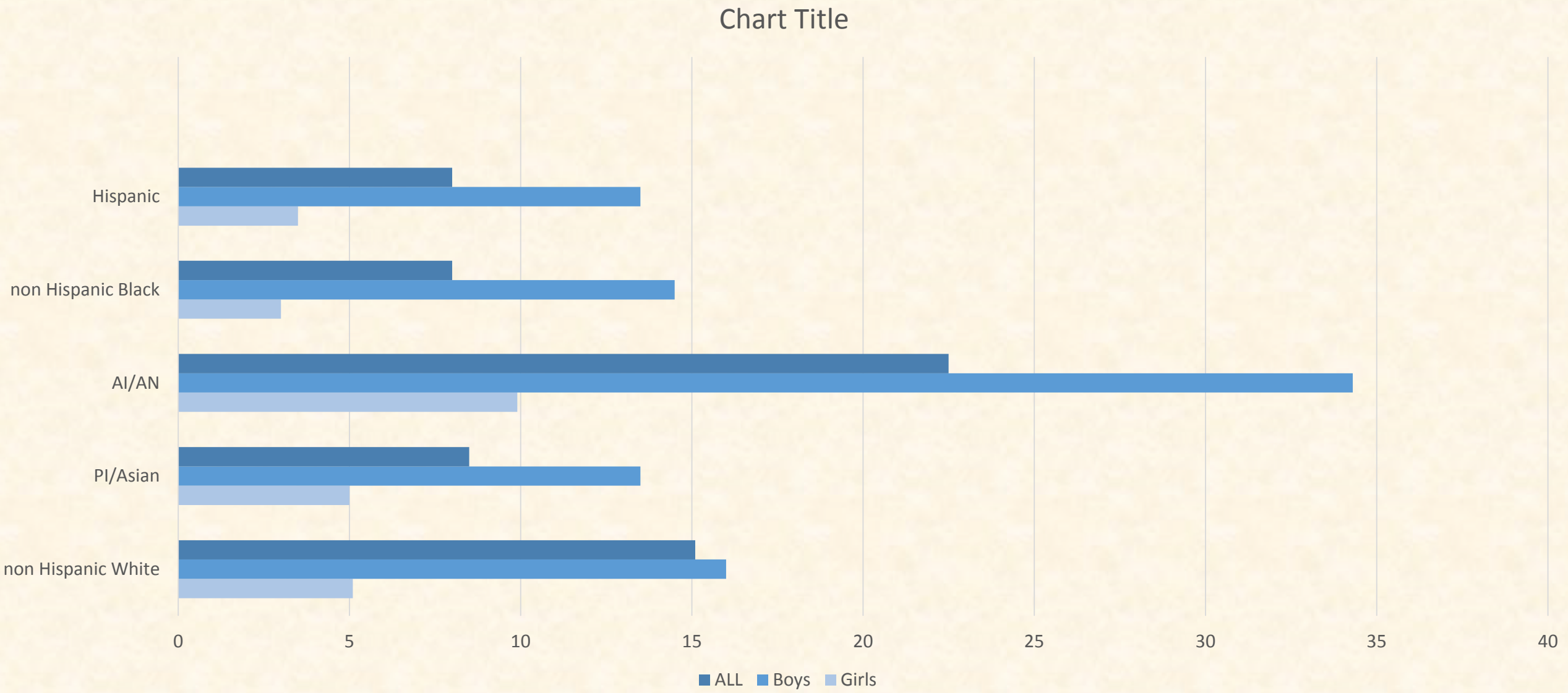
Suicide Among Ethnic Youth age 18-24

CDC 2009



SAD PERSONS Screening Suicide Risk

- S – Sex
- A – Age
- D – Depression
- P – Previous Attempts
- E – Ethanol Abuse
- R – Rational thinking is lost
- S – Social supports lacking
- O – Organized plan
- N – No significant other
- S – Sickness/Stressors

Approved Medications for Adolescent Anxiety and Depression

Antidepressants Anxiolytics	FDA Approved	Age Range	Dose Range
Fluoxetine	MDD OCD	8+ 7+	10-20mg/day 10-60mg/day
Fluvoxamine	OCD	8+	8-11 yrs. – 25 – 200mg 12- 17 yrs. – 25 – 300mg
Sertraline	OCD	6+	6-12 yrs. – 25mg – 200mg 13-17 yrs. – 50mg – 200mg
Escitalopram	MDD	12+	10-20mg
Duloxetine	GAD	7+	20mg – 60mg/day
Clomipramine	OCD	10+	25mg– 200mg/day or 3mg/kg/day – whichever less

Oxford Study of Antidepressants for Children and Adolescents, Lancet, June 2016

- 14 Antidepressants
- 34 trials analyzed
- 5260 participants aged 9-18 years
- Ranked by:
  - Efficacy
  - Tolerability
  - Acceptability
  - Associated Serious Harms

- Zhou X, Xie P, Cipriani A, et al.3703

Lancet study Medications **ineffective/Intolerable** for Depression in Children/Adolescents 2016

- Venlafaxine – increased suicidal ideation and attempts
- Nortriptyline
- Amitriptyline
- Imipramine
- Desipramine
- Duloxetine
- Paroxetine
- Citalopram
- Mirtazapine
- Sertraline
- Nefazadone
- Escitalopram

Some details…

- **Least effective**
  - Nortriptyline
- **Worst tolerability**
  - Imipramine
  - Venlafaxine
  - Duloxetine

- **Highest suicide risk**
  - Venlafaxine

(higher risk than placebo)

Given intolerability issues from this study we have…

Depression

- Fluoxetine

Anxiety

- Fluoxetine
- Fluvoxamine
- Clomipramine

FDA Approval For Children with Anxiety….with notations

Generalized Anxiety

- Duloxetine
  - Worst tolerability,
  - Deadly in overdose

Obsessive Compulsive Disorder

- Clomipramine
  - Deadly in Overdose
- Fluoxetine
- Fluvoxamine
- Sertraline

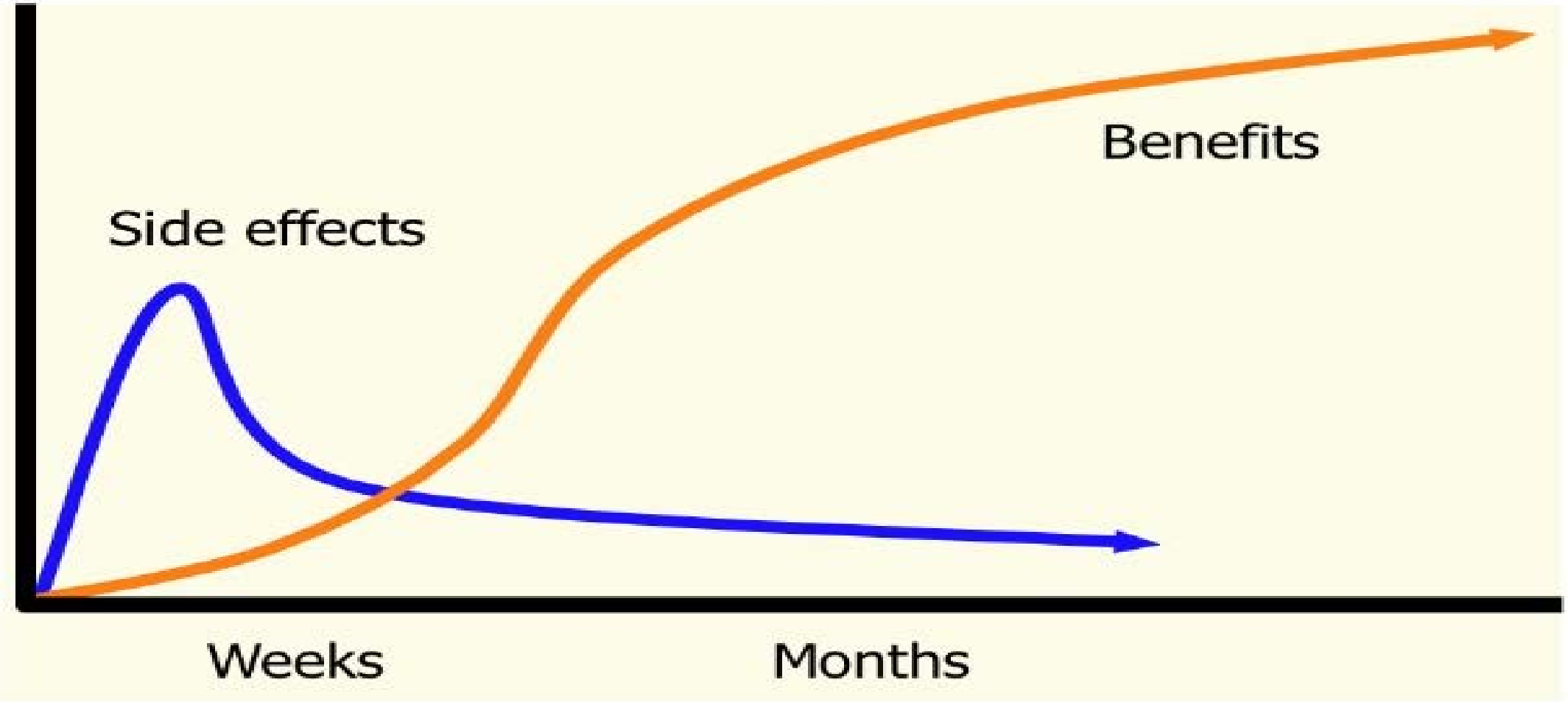
FDA Warning

- Issued warning October 2004 antidepressant medications may increase suicidal thoughts/behavior in small number of children and adolescents.
- Response to study in England on paroxetine/venlafaxine where increased suicidal ideation.
- Issued 3 days after action taken in England to prohibit paroxetine/venlafaxine use in children and adolescents.

More information on FDA warning

- FDA has not prohibited or removed these medications.
- No suicides were reported in the studies leading to the warning.
- After warning issued, over 4 years there was a 44% increase in suicides in countries where warning placed on all antidepressants (USA, Canada, Finland)….most female, most suffocation/strangulation

Antidepressants



Side effects: Fluoxetine/Fluvoxamine/Sertraline/Clomipramine

- Headache/ Dizziness
- Stuffy nose
- Sexual complaints
- Anxiety
- Insomnia/Awakening
- Palpitations
- Change in appetite

GI complaints

Drowsiness

Dry mouth

Weight change

Increased QTc

Flatulence (Clomipramine)

Vivid Dreams(escitalopram)

Fluoxetine

- Depression 10-20mg/day
- Anxiety 10-20mg/day
- Most common SE: Decreased Libido
- Least likely to cause withdrawal symptoms
- Starts about 3 days after last dose taken
  - Nausea
  - Nervousness
  - Insomnia

Fluvoxamine

- OCD: IR start 25mg q HS
    - increase gradually by 25mg as needed
    - max 300mg/day
    - Divide doses beginning at 50mg
    - Most common SE: insomnia
    - Withdrawal: within 36 hours of last dose

• Agitation/Irritability	Muscle aches	Anxiety
• Tingling sensation	*Suicidal thoughts*	Dizziness
• GI distress	Confusion	Mood swings
• Sweating/Hot/Cold flashes	Depersonalization	Insomnia

Sertraline

- Anxiety: 50mg/day
- may increase gradually
- max 200mg/day
- Most common SE: “Rumbly” stomach, Headache
- Withdrawal: within 36 hours of last dose
  - Dizziness Insomnia/Nightmares Weakness
  - Shaking Mood Swings Agitation
  - Tingling Memory loss *Suicidal ideation*
  - Anger Anxiety/Panic Nausea/Vomiting/Cramp
  - Confusion Vivid dreams Poor concentration

Escitalopram

- Depression: 10mg/day
- Recommend on full stomach, otherwise nausea
- Most common SE: Nausea, Headache, Sexual
- Withdrawal begins within 48 hours of last dose
  - Nausea/ Diarrhea
  - Cramps
  - Poor concentration
  - Constipation
  - Dizziness
  - Headache
  - Anxiety/Irritability
  - Aggression
  - Blurred vision
  - Crying spells
  - Eye floaters
  - Electric shock sensations
  - *Suicidal thoughts*
  - Stuffy nose
  - Sweating
  - Insomnia
  - Depersonalization

Clomipramine

- Anxiety (OCD):
  - 25mg/day may increase gradually
  - max 3mg/kg/day or 200mg (least amount)
  - Most Common SE: Flatulence, Dry mouth
- Withdrawal: 3 days to 2 weeks after last dose
  - Strange dreams
  - Headache
  - Nausea
  - Stuffy nose
  - Irritability
  - Restlessness

Duloxetine

- Generalized Anxiety
- 30mg/day x 2 weeks, then may increase to 60mg
- Withdrawal begins about 36 hours after last dose
  - Dizziness
  - GI distress
  - Tremors
  - Sweating
  - Fatigue
  - *<u>Suicidal ideation/attempts</u>*

  Nightmares/ Insomnia
  Anxiety/Irritability/Agitation
  Paresthesia
  Hallucinations
  Weakness

  Headache – BAD
  Seizures
  Sleep disruption
  Aggression
  Self injury

Caution

- Serotonin Syndrome
- Overdose
  - More likely (in order) to be with:
    - #1 acetaminophen or ibuprofen
    - #2 SSRI
    - #3 Atypical antipsychotic
    - #4 Antihistamine
  - Death was most likely with Atypical antipsychotics and antidepressants
- Prolonged QT Syndrome
  - If child has history (or family history) of fainting, seizures, arrhythmias or sudden death – check ECG for LQTS


Hey, you don't need to keep that in there.
Come on.
www.robot-hugs.com
(c) 2012

Therapy

- Cognitive behavior therapy
- Play therapy
- Family therapy
- Exposure therapy
- Individual psychodynamic therapy
- Group therapy

Cognitive Behavioral Therapy

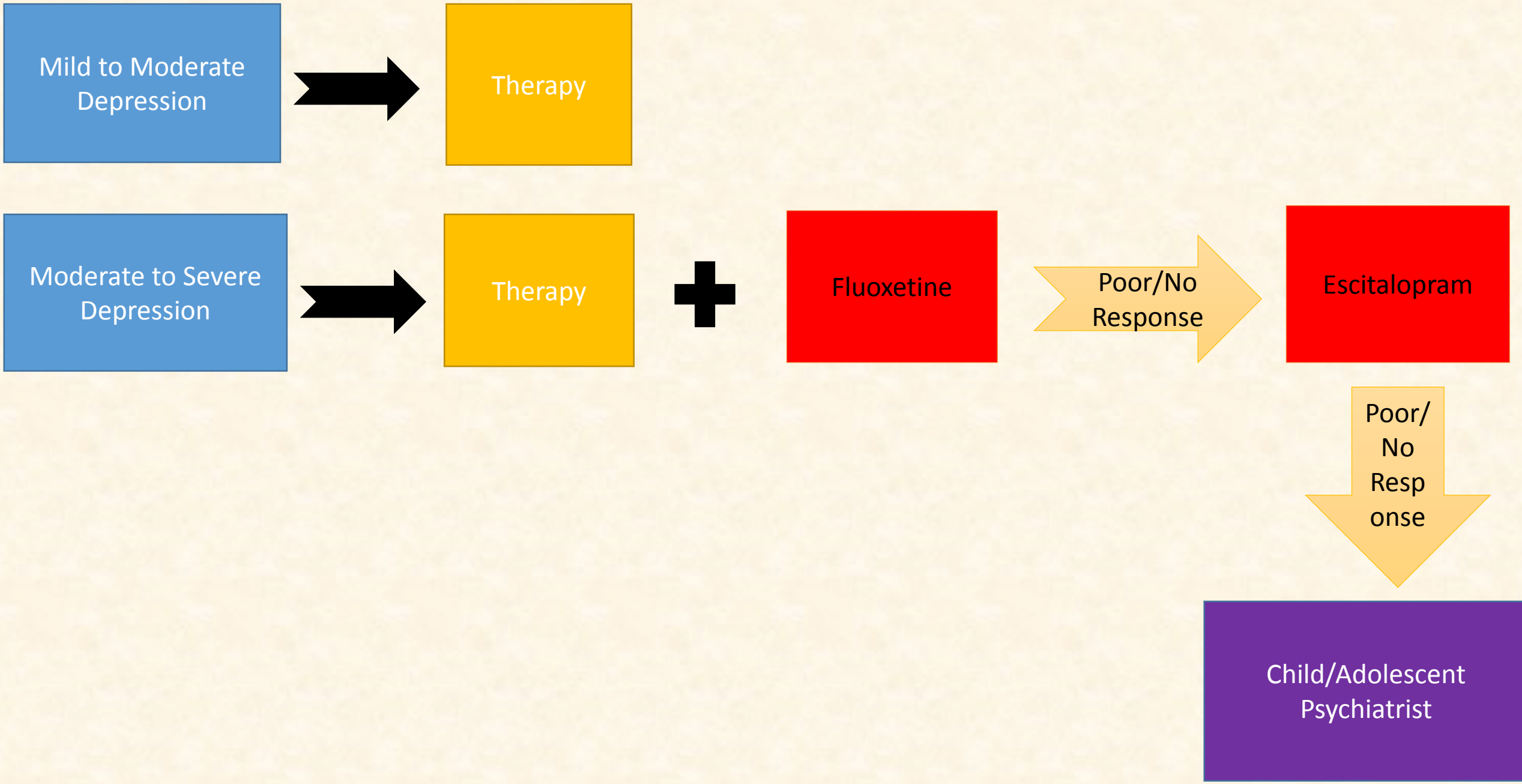
- Works to change beliefs and interpretations toward a more healthy persona
- Cochrane review of 41 studies, analyzed 26 studies
  - Ages 4-18 yrs.
  - 59.4% remitted from anxiety disorder with CBT (17.5% waitlist controls remitted)
  - No direct comparison between CBT and other therapies
  - After CBT 40% continued to have significant disturbance

Pearls

When starting an antidepressant . . .

- FDA warning for Suicidal Ideation
- Close monitoring for suicidal ideation/attempt
- Frequent visits with doctor/nurse/therapist to help with monitoring
- Safety precautions
- There is never a guarantee….when suicidal attempt suspected, hospitalize

Basic Guideline Using FDA Indications plus Tolerability/Effectiveness Study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Therapy
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Poor/No Response
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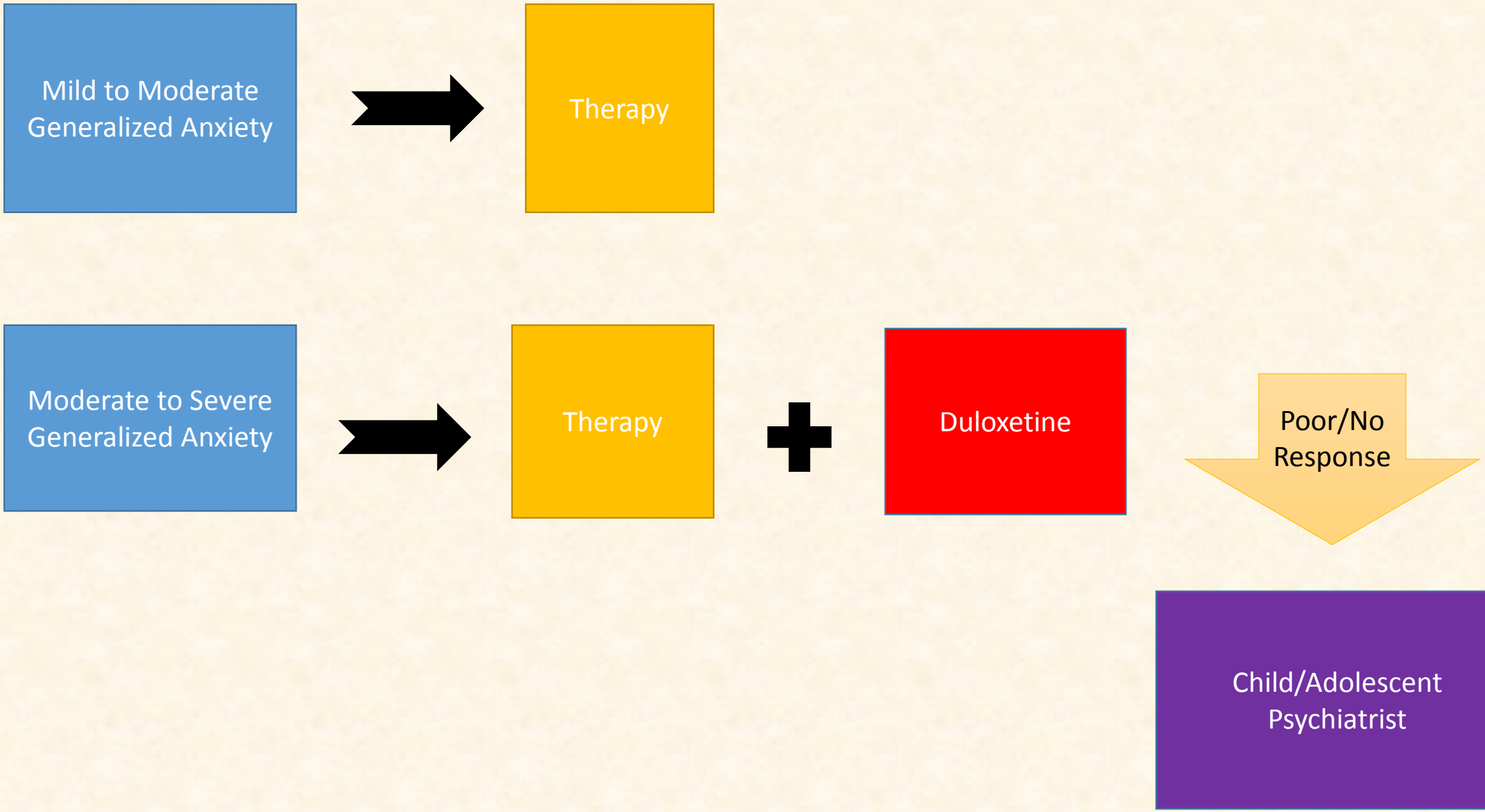
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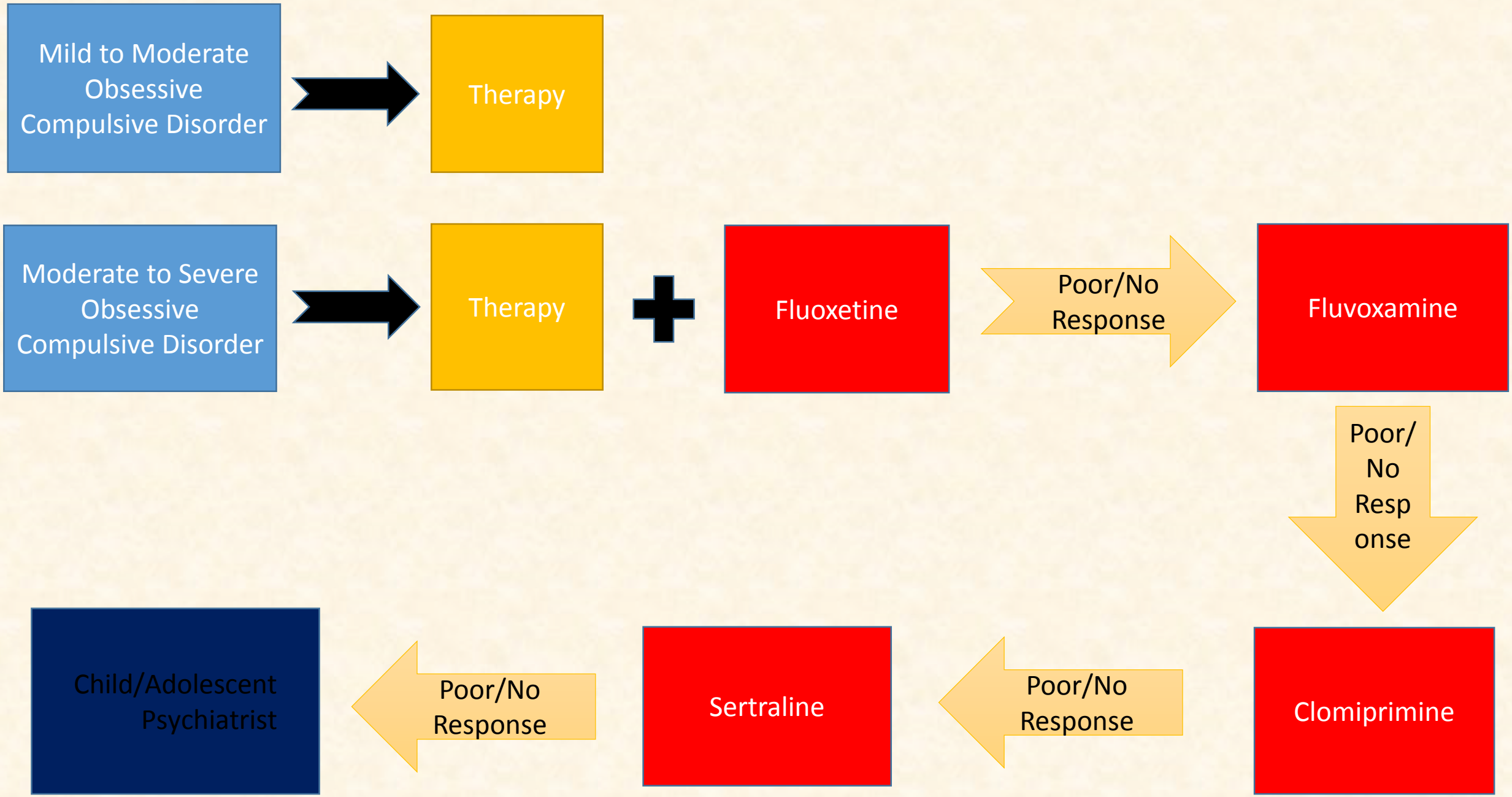
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Child/Adolescent Psychiatrist

Also…

- Depression in adolescent can be the first presentation of Bipolar Disorder – there are no medications FDA approved for Adolescents for Bipolar Depression

- If Adolescent becomes more agitated with antidepressant or suicidal ideation occurs (increases)…..probable Bipolar Disorder

Resources and Bibliography

Helpful Resources

- American Academy of Child & Adolescent Psychiatry www.aacap.org
- Anxiety & Depression Association of America www.adaa.org
- Bipolar Kids www.bipolarkids.org
- Children & Adults with ADHD www.CHADD.org
- National Alliance for the Mentally Ill www.NAMI.org
- National Suicide Prevention Lifeline www.suicidepreventionlifeline.org
- Zero Suicide www.zerosuicide.sprc.org

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- http://www.cps.ca/en/tools-outils/condition-specific-screening-tools-and-rating-scales
- http://www.fearofstuff.com/phobialist/
- http://www.healmyptsd.com/education/post-traumatic-stress-disorder-statistics

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