Mood Disorders in Children and Adolescents :

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Objectives

- Review current understanding of mood disorders in children and adolescents with emphasis on :
- 1. What is different in children and youth
- 2. Evidence-Based Approach to Treatment
- 3. Assessment of Suicidal Risk
- 4. Tips to engaging children and youth in interview

Clinical Descriptions

- Distinct and enduring mood change
  - Dysphoria, irritability, unhappiness, tearfulness, anger reactions, rage
  - Not all Teens go through crises, therefore have high index of suspicion if mood or behaviour changes suddenly
- School problems
  - Underachievement, absence, failure, refusal
- Family conflict
  - Mood contagion; poor coping strategies (drugs, indiscriminate sexual activity,school refusal, increase in peer difficulties

Clinical Descriptions

- **For prepubertal depressed children** Somatic complaints more common e.g.
  - Headache, chronic fatigue, GI, MSK, Neuro, etc
  - Often associated with chronic illnesses of childhood and/or certain medications (isotretinoin, phenobarb)
- For depressed adolescents more hopelessness, helplessness, anhedonia,hypersomnia and lethality of suicide attempt

Diagnosis of Depression What is different in Youth

- Same criteria as adults, with 2 exceptions:
  - Mood state includes irritability
  - Weight loss not absolute; failure to make expected gains recognized
- Children tend not to have hypersomnia, and are less likely to present with psychotic features than adolescents
- Children younger than nine exhibit more irritability and emotional lability

Diagnosis – Developmental Themes

- Collateral history
- Cognitive and verbal abilities may be limited
- Methods of assessment
- Informant effects prevalence (parent vs youth) parents not so good at identifying internal mood states or internalizing symptoms in their children
- Psychiatric illness in parent effects prevalence

Co-morbidity

- 15% depressed children have co-morbid conduct disorder
- 25% have substance use disorders
- Anxiety disorder predicts subsequent depression 2/3 of time in children and adolescents whereas reverse true for adults
- Always ask about family history of bipolar illness
- First episode depression but with family history higher index of suspician especially for depression with psychosis
- Co-morbidity leads to increased impairment, less positive prognosis, increased treatment challenges

Epidemiology – Depressive Disorders

- Point prevalence pre-pubertal: 0.4-2.5% M=F;
- Point prevalence adolescents: 3-9% F>M; Incidence rates 3%
- No clear estimates race/ethnicity
- Lower SES increases risk
- Lifetime prevalence: 20-25%

Etiology

- No single cause
- Phenotypic expression of final common pathway for several pathological processes
- Correlates/risk factors known
- Bio-psycho-social model

Genetics

- Family clusters: Depressed children have more depressed adult relatives, young depressed adults have more depressed children even when living outside home
- MZ>DZ concordance
- No isolated gene

Temperament

- Constitutional style presumable inherited by the child – sets the stage for and moderates child/world interaction
- Activity level, adaptability to change and novel stimuli, response intensity to events, perseverance in the face of obstacles
- “Behavioural inhibition” associated with anxiety but no clear temperament with depression

Neuroendocrine

- Equivocal studies adrenal steroid hypersecretion
- Inconclusive role of thyroid
- Increasing evidence for dysregulation of growth hormone
- Sex hormones and impact under major study

Similarities and Differences adult vs child vs adolescent

- Strong evidence of altered serotonergic, noradrenergic, dopamininergic systems – similar to adult studies
- Adolescents more likely to manifest atypical symptoms of depression, increased sleep and appetite. , less responsive to TCA
- Prepubertal children show greater frequency of anxiety, somatic complaints, phobias and depressed appearance
- Hepatic Metabolism in children age 6-10 may be twice that of adults, drug half lives shorter
- Behavioural activation occurs in 20% of children on SSRI's

Neuroanatomical Correlations

- Reduced frontal lobe volumes
- Decreased perfusion and monoamine function in frontal, temporoparietal and occipital lobes correlated with depression in adolescents

Sleep Studies

- Precursor, marker, symptom, consequence of mood disorder
- In Adults:
- Increased latency, shortened REM sleep latency, increased duration of REM overall, lower percentages of stage two and three sleep
- Abnormality associated with increased relapse of depression
- REM abnormalities appear less frequent and severe in children and adolescents

Psychological Correlates

- "depressogenic" cognitive abnormalities
- Dysfunctional attitudes precede disorder (negative attributional styles)
- Learned helplessness paradigm
- Negative life events (stress-diathesis models, loss events, failure events, life transitions, role changes)

Risk Factors for Depression

- Maltreatment/ Physical or Sexual Abuse -
- Affective regulation deficiencies
- Sexual identity Confusion
- Loss of parent before age of 11
- Family History of Depression
- Family history of completed suicide

Social Correlates

- Poverty
- Parenting (Mental illness, highly critical parenting, maladaptive parenting behaviour)
- Peers (limited social skills, social isolation)
- Stigma
- Resources

Natural History and Course

- Mean length of MDE in Children and Adolescents 7-9 months
- 90% adolescents have remission with in two years but relapse rates high
- Comorbidity with anxiety disorders, Disruptive behaviour disorders substance abuse high
- OCD +MDE predicts severe and prolonged depression course
- Depression risk factor for suicide
- 20-40% teens with depression go on to bipolar with highest rates of switch in those with reverse symptoms, double depression, or psychotic features

Prognostic Factors

- Chronicity of index episode predicts degree of impairment and duration of remainder of episode
- If treated, then good prognosis. If untreated, or partially treated, can continue for up to 5 years
- Earlier onset depression leads to increased risk and more virulent course of future MDD.
- Characteristic symptom cluster of depressive symptoms point to increased risk of Bipolar illness: early pubertal age of onset, rapid symptom development, hypersomnic or psychomotor retarded, mood-congruent psychosis fam hx BPD

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Long Term Sequalae

- Educational challenges
- Peer relationship issues
- Negative self image
- Substance use and personality disorders
- Family conflict
- Suicide attempts and completion
- Antisocial behaviour

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Incidence of Youth Suicide

- 1960s-1980s: threefold increase in rates (hypothesis included increased divorce, maternal employment, role of media, role playing games, drugs). None of these were proven, except for drugs.
- 1990s – rates of suicide decreased. Drug use is increasing. Hypothesis include increased awareness, assessment, and treatment. Recent estimate that up to 8% recurrently depressed teens will complete suicide

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Risks for suicide

- Perinatal – LBW, maternal substance use
- Family – first degree relative who completed or family history of suicidal behaviour
- 5HT – low CSF 5-HIAA; linked to increased aggression, impulsivity, and mood dysregulation
- Imitation – 4% suicides are cluster in nature (related to media effects)
- Family themes
- Substances
- SSRIs – disproven, but look for akathesia

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Psychopharmacology

- Response – no symptoms/50% reduction for 2 weeks
- Remission – 2 weeks of no symptoms
- Recovery – 2 months of no symptoms
- Relapse – symptoms recur during remission
- Recurrence – symptoms recur after recovery (a new episode)

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Acute Phase Treatment (6-12/52)

- SSRIs
  - 70-90% response rate
  - Various levels of approval, side effects, drug interactions, cost
  - Fluvoxamine has most evidence
  - Dosages often need to be high or BID
  - SFx: GI, Neuro, Sex, Mania, EPS
  - Discontinuation syndromes
- MAOIs

Antidepressants

- TCAs
  - Data suggests they equal placebo in efficacy but much more dangerous!
- Novel
  - buproprion, venlafaxine, nefazodone, mirtazapine

Subtypes of Depression

- MDE with Psychosis:
  - Monotherapy effective 20% cases
  - ECT particularly effective
  - Atypicals used
- Atypical
  - No paediatric data to differ from standard care
- SAD
  - Light therapy (10 000 lux at 1 foot 30 mins in early am)
- Bipolar Depression
  - Mood stabilizer, lithium, lamotrogine, ECT, antidepressants

Acute – other themes

- Recognize and treat co-morbid conditions
- Optimize psychopharmacology
- Integrate psychotherapy
- Work with family and school
- Consider rehab model based on severity

Continuation Therapy (6-12/12)

- Goal is remission
- See biweekly or monthly
- Review functioning in all spheres (home school, medication compliance, side effects, peer relations, vegetative signs of depression
- Meds do not decrease at remission. (First episode wait 6 months 2nd or more one year)
- Relapse is 40-60% (teach signs to family)

Maintenance Therapy (1+ years)

- Who – episode frequency and severity, chronicity, impairment, co-morbid features, social supports, need for rehabilitation
- 1 episode = 1 year
- 2 episodes = 3 years or life
- 3 episodes = life

Treatment Resistance

- 20% of youth
- Review diagnosis in detail
- Optimize initial treatment
- Switch to different agent/same group
- Switch to different group
- Augment (Li, T4, Atypical)
- ECT
- Novel Treatment (IV CMI, TMS)

Keys to Interviewing Child

- Just like an animal , a child needs to be studied in natural habitat to be understood
- Sitting in chair being asked questions by adult not natural!
- Observe in waiting room, play, draw family,
- Ask about three wishes, desert island
- A child who is too sad to play ,withdraws at school, difficult to engage

Tips to Interviewing Adolescent

- Take a genuine interest in life, music, spiritual beliefs,
- Be open, but not intrusive
- Frank about limits of confidentiality need to break confidentiality re suicidal and homicidal behaviour
- Advise re drug use but do not need to inform parents unless issues of abuse involved and teen under 16

Being with a Teenager

- Tough being family doctor of teen and parent
- Differentiate yourself from parent with keen interest in well being of teen, but not rule breaking
- How to ask about drugs and sex without seeming intrusive
- Are you comfortable with your friends activities
- How will you decide when you are ready for an intimate relationship, any questions
- Do you have confidents, are you being bullied or pressured in any way that you want to discuss?

Anxiety

- Panic Disorder leads to school refusal in children and youth
- Beware of home schooling as solution as it often exacerbates anxiety via avoidance
- Ensure Group Social activities in home school community
- Children who miss school on “show and tell” days or older when presentation due may have social phobia
- Ask about school missed and performance anxiety

Separation Anxiety and phobias

- In anxious child if you do not ask you may not be told that 12 year old still sleeps with parent
- Separation anxiety may be linked with later social phobia
- Look for unusual fears, clowns, butterflies as well as dogs, storms , needles
- Only considered phobia if interferes

Medication

- When choosing SSRI for anxiety
- IF child has trouble sleeping, consider Fluvoxamine
- Fluoxetine approved by FDA for Depression
- Ongoing studies with Citalopram for Depression in youth
- Monitor carefully for increased agitation
- (20-30%)
- Be sure to measure baseline suicidal ideation so that it is not attributed to medication

Q & A