Treatment & Interventions for Youth with Bipolar Disorder

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Goals:

- Gain knowledge regarding psychopharmacological interventions
- Gain knowledge regarding empirically-based psychosocial interventions
- Develop a deeper understanding of how bipolar disorder affects the individual in an educational environment
- Prompt thought regarding what types of interventions specific to an educational environment might be indicated

Jin

- 17-year-old,Chinese-American, male
- Junior with 3.89 GPA, GATE & AP classes
- Involved with lots of extracurriculars
- Referred by parent due to recent hospitalization (attempted suicide). During meeting, team discovered he had been previously diagnosed with MDD (approx 11 months ago), & had attempted several antidepressants, which did not seem to help, but made him agitated, irritable, and more withdrawn. During his hospitalization, Dr.'s changed his diagnosis to bipolar I disorder and he was prescribed Lamictal (lamotrigine).

Elisa

- 8-year-old, Mexican-American female
- 2nd grade & lots of office referrals (+suspensions).
- Referred by teacher due to continued challenges with compliance in the classroom.
- Diagnosed with bipolar disorder NOS (at age 5) & comorbid ADHD (age 4) and ODD (at age 5).
- Prescribed Seroquel (quetiapine), Adderall (dextroamphetamine) & Ambien (zolpidem).

First…

some basics…

- Bipolar disorder is a spectrum of diagnoses based on the presence of manic and depressive symptoms
- …which are classified into manic, hypomanic, major depressive, or mixed episodes
- ….and result in bipolar I disorder, bipolar II disorder, bipolar disorder NOS or cyclothymia.

some basics…

Symptoms of mania/hypomania:

1. Inflated self-esteem or grandiosity
2. Decreased need for sleep
3. Pressured speech or more talkative than usual
4. Flight of ideas or racing thoughts
5. Distractibility
6. Psychomotor agitation or increase in goal-directed activity
7. Hedonistic interests

Some basics…

MANIC EPISODE

A. DURATION… lasting at least **1 week** (or any duration if hospitalization is necessary).

B. SYMPTOMS… **three** (or **four** if the mood is only irritable)

F. SEVERITY… **marked impairment** in occupational functioning or in usual social activities or relationships with others, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features.

C. & E. RULE OUTS… not meet criteria for a Mixed Episode… not due to direct physiological effects of a substance… or a general medical condition.

Some basics…

HYPOMANIC EPISODE

A. DURATION… at least **4 days**.

B. SYMPTOMS… **three** (**four** if the mood is only irritable).

C, D, E. SEVERITY… **unequivocal change**… **uncharacteristic** of the person when not symptomatic… **observable** by others… **not severe** enough to cause marked impairment in social or occupational functioning or to necessitate hospitalization, and there are no psychotic features.

F. RULE OUTS… not due to the direct physiological effects of a substance… or a general medical condition.

some basics…

Symptoms of Major Depression:

1. Depressed mood (in children can be irritable)
2. Diminished interest in activities
3. Significant weight loss or gain
4. Insomnia or hypersomnia
5. Psychomotor agitation or retardation
6. Fatigue/loss of energy
7. Feelings of worthlessness/inappropriate guilt
8. Diminished ability to think or concentrate/indecisiveness
9. Suicidal ideation or suicide attempt

Some basics…

MAJOR DEPRESSIVE EPISODE

A. SYMPTOMS & DURATION… **five** (or more)… present during same **2 week** period… at least one of the symptoms is either depressed mood or loss of interest or pleasure.

C. SEVERITY**… clinically significant** distress or impairment in social, occupational, or other important areas of functioning.

B. D, & E. RULE OUTS…. do not meet criteria for a Mixed Episode… not due to the direct, physiological effects of a substance… or a general medical condition… not better accounted for by Bereavement… (Rule out also with symptoms… not include symptoms clearly due to mood-incongruent delusions or hallucinations)

Some basics…

MIXED EPISODE

A. SYMPTOMS & DURATION… **both** Manic and Major Depressive Episode (except for duration) **nearly every day** during at least a **one** week period.

B. SEVERITY… sufficiently severe to cause **marked impairment** in occupational, or in usual social activities or relationships with others, or to necessitate hospitalization… or there are psychotic features.

C. RULE OUTS… not due to the direct physiological effects of a substance… or a general medical condition.

some basics…

SUBTYPES

- Bipolar I disorder (296.xx)
- Bipolar II disorder (296.89)
- Bipolar disorder NOS (296.80)
- [Cyclothymia (301.13)]

some basics…

DEVELOPMENTAL ISSUES

- Adolescent vs. adult onset
- Early (prepubertal) vs. adolescent/adult onset

Treatment: Medications

Medications

- American Academy of Child and Adolescent Psychiatry (2007) practice parameters.
- FDA Approved (youth w/bipolar disorder):
  - 10 years + = risperidone (Risperdal)
  - 12 years + = lithium
- Prescribed variety of meds "off-label"
- Polypharmacy is the rule, not exception

(McClellan et al., 2007; Vitiello, 2008; Smarty & Findling, 2007)

Medications

Brand Name	Generic Name	Prescriptions US (2007)
1. Seroquel	quetiapine	10,991,000
2. Risperdal	risperidone	7,654,000
3. Topamax	topiramate	7,416,000
4. Lamictal	lamotrigine	6,861,000
5. Abilify	aripiprazole	4,227,000
6. Zyprexa	olanzapine	3,849,000
7. Depakote ER	divalproex sodium	3,849,000
8. Depakote	divalproex sodium	3,484,000
9. Paxil CR	paroxetine	2,491,000
10. Geodon Oral	ziprasidone	2,226,000

Verispan VONA (2008).

Medications

- Lithium
  - Remains the most researched
  - Monotherapy may be effective in treatment of acute mixed & manic states
  - Evidence is increasing supporting its use in treatment of bipolar depression
  - Effective adjunctive therapy
  - Narrow therapeutic index

(Findling & Pavuluri, 2008; Smarty & Findling, 2007)

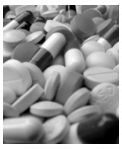
Medications

- Anticonvulsants:
  - Most common = divalproex sodium/valproate & carbamazepine
  - Mixed results
  - Lamotrigine for bipolar depression?
  - Data lacking in relation to topiramate, oxcarbazepine, & gabapentin

(Consoli et al., 2007; Smarty & Findling, 2007)

Medications

- Atypical antipsychotics
  - Quetiapine – mania
  - Risperidone, olanzapine, clozapine, apiprazole
- Antidepressants
  - No added benefit
  - Concern of destabilization
  - Suicidality?



(Gibbons et al., 2007; Goldberg et al., 2007; Frazier et al., 2008; Smarty & Findling, 2007)

Medications

Symptoms to be vigilant for:	
Anxiety	Agitation
Panic attacks	Insomnia
Irritability	Hostility
Aggressiveness	Impulsivity
Akathisia	(Hypo) mania
Other unusual changes in behavior	Worsening of depression
Increases in suicidality	

(FDA, 2007)

Medications

Medication	Adverse Effects*
Lithium	Slight nausea, stomach cramps, diarrhea, thirstiness, muscle weakness, feelings of being somewhat tired, dazed, or sleepy, hand tremor, weight gain, skin conditions, (acne and psoriasis), and may produce edema, or swelling. --Toxic levels can cause vomiting, severe diarrhea, extreme thirst, weight loss, muscle twitching, abnormal muscle movement, slurred speech, blurred vision, dizziness, confusion, stupor, or pulse irregularities.
Lamictal	Dizziness, ataxia, somnolence, headache, diplopia, blurred vision, nausea, vomiting --Can cause a rare rash=Stevens-Johnson Syndrome and Toxic Epidermal Necrolyis, which can lead to death.
Depakote	Nausea, dyspepsia, diarrhea, vomiting, increased appetite, weight gain, asthenia, somnolence, dizziness, tremor, back pain, alopepcia. --Has been associated with Polycsytic Ovarian Syndrome in females
Seroquel	Constipation, headache, dry mouth, mild weight gain (or loss). --Like all antipsychotics, can cause tardive dyskinesia.
Zyprexa	Akathisia, amblyopia, dry mouth, dizziness, sedation, insomnia, orthostatic hypotension, weight gain, increased appetite, runny nose, low blood pressure, impaired judgment, thinking, motor skills, and response to senses. --Can cause seizure
Risperdal	Akathisia, anxiety, insomnia, low blood pressure, muscle stiffness, muscle pain, sedation, tremors, increased salivation, stuffy nose, weight gain. -- Can cause sexual dysfunction such as retrograde ejaculation. Has been associated with breast tenderness which may result in lactation (both genders).
Geodon	Sedation, insomnia, orthostasis --Can cause life threatening neuroleptic malignant syndrome or lethal heart arrthymia torsades de pointes.
Abilify	Akathisia, headache, unusual tiredness or weakness, nausea, vomiting, uncomfortable feeling in the stomach, constipation, light-headedness, trouble sleeping, restlessness, sleepiness, shaking, and blurred vision.

* Not limited to...

Medications

- Must have knowledge about potential medications used to treat, including the effectiveness and potential related adverse effects.
- Consider the effect of medications on student's educational world.
- How will communication between treatment providers look in order to enhance the opportunity for treatment success?

Treatment: Psychosocial

Psychosocial

DEFICITS

- Relationships (peers & family members)
- Attitudes & cognitive schemas
- Recognition & regulation of emotion
- Social problem solving
- Self-esteem
- Impulse control
- Less social rhythm regularity

(Geller et al., 2000; Goldberg et al., 2008; Goldstein et al., 2006; McClure et al., 2005; Shen et al., 2008)

Psychosocial

- Common goals of programs: improve compliance with medications, increase awareness, promote health, & improve relationships
- Through use of:
  - Psychoeducation
  - Cognitive Behavioral Treatment (CBT) Techniques
  - Promotion of health hygiene
  - Focus on relationships

Psychosocial

PSYCHOEDUCATION

- Stages of grief over illness
- Basic facts
- Vulnerability-Stress Model
- Individual & Family Assessment

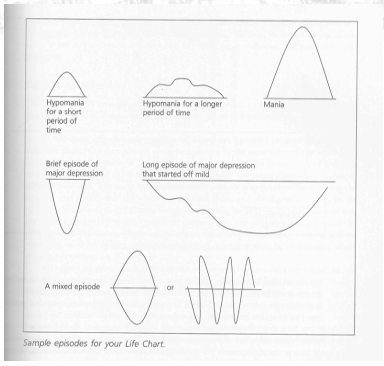
worksheet 3.2 **Life Chart**

The line represents the passage of time from the beginning of your illness to the present. Use the sample episodes from the figure on page 47 to draw your pattern of depression and mania over time.

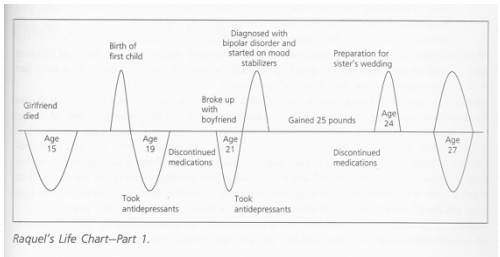
Mania

Time

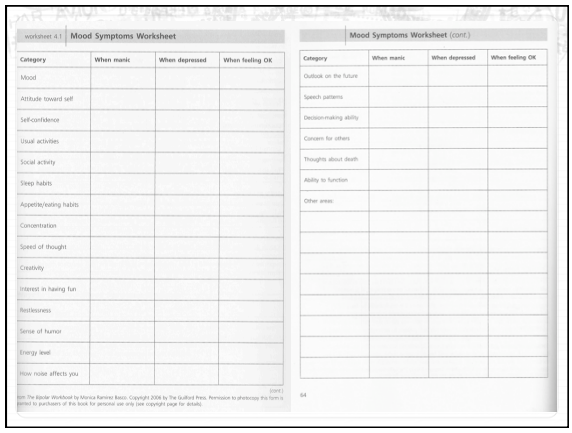
Depression



Sample episodes for your Life Chart.



Raquel's Life Chart—Part 1.

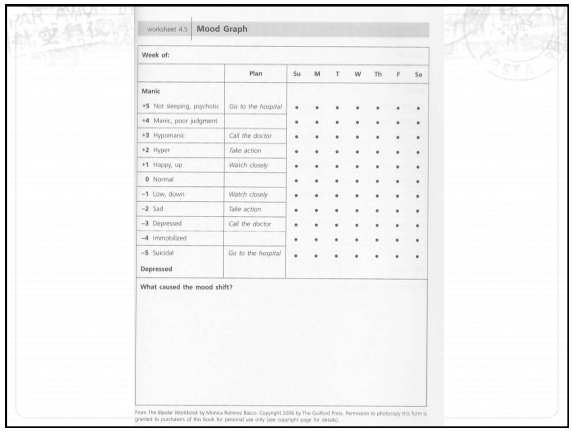


worksheet 4.1 **Mood Symptoms Worksheet**

Category	When manic	When depressed	When feeling OK
Mood			
Attitude toward self			
Self-confidence			
Usual activities			
Social activity			
Sleep habits			
Appetite/eating habits			
Concentration			
Speed of thought			
Creativity			
Interest in having fun			
Restlessness			
Sense of humor			
Energy level			
How noise affects you			

Mood Symptoms Worksheet (cont.)

Category	When manic	When depressed	When feeling OK
Outlook on the future			
Speech patterns			
Decision-making ability			
Concern for others			
Thoughts about death			
Ability to function			
Other areas:			



worksheet 4.5 **Mood Graph**

Week of:

	Plan	Su	M	T	W	Th	F	Sa
Manic								
+5 Not sleeping, psychotic	*Go to the hospital*	•	•	•	•	•	•	•
+4 Manic, poor judgment		•	•	•	•	•	•	•
+3 Hypomanic	*Call the doctor*	•	•	•	•	•	•	•
+2 Hyper	*Take action*	•	•	•	•	•	•	•
+1 Happy, up	*Watch closely*	•	•	•	•	•	•	•
0 Normal		•	•	•	•	•	•	•
−1 Low, down	*Watch closely*	•	•	•	•	•	•	•
−2 Sad	*Take action*	•	•	•	•	•	•	•
−3 Depressed	*Call the doctor*	•	•	•	•	•	•	•
−4 Immobilized		•	•	•	•	•	•	•
−5 Suicidal	*Go to the hospital*	•	•	•	•	•	•	•
Depressed								

What caused the mood shift?

Psychosocial

CBT

- Emphasizes the role of thinking in what we feel & do.
- Thoughts are learned & can be unlearned causing changes in feelings and behaviors.
- Distorted cognitions & automatic thoughts
- The Triple C Method for controlling thoughts:
  - Catch
  - Control
  - Correct

Psychosocial

CBT (cont)

- Four thinking error categories:
  - Misperceptions
    - Magnification, Minimization
  - Jumping to Conclusions
    - Mind Reading, Fortune Telling, Catastrophizing, & Personalization
  - Tunnel Vision
    - Selective Perception, Mental Filtering
  - Absolutes
    - Black & White Thinking, Labeling, & Shoulds

Psychosocial

HEALTH & RELATIONSHIP HYGIENE

- Social Zeitgeber (social prompts) + Circadian Rhythms Theories
- Stressful life events & disruptions in social rhythms prompt new episodes
- Decrease stressors in the environment
- Stabilize routine

Psychosocial

- Family-Focused Treatment (FFT)
- Child- and Family-Focused Cognitive Behavioral Therapy (CFF-CBT or RAINBOW)
- Multi-Family Psychoeducation Group (MFPG) & Individual Family Psychoeducation (IFP)
- Dialectical Behavior Therapy (DBT)

Psychosocial

FAMILY-FOCUSED TREATMENT (FFT)

- Originally designed for use in families of individuals with schizophrenia.
- Episode of bipolar disorder = disruption in entire family system.
- Purpose of treatment is to attain a new state of equilibrium.
- "Expressed Emotion" is a critical element

(Miklowitz et al., 2007)

Psychosocial

FAMILY-FOCUSED TREATMENT (FFT)

- Components = psychoeducation, communication enhancement training (CET) & problem solving training
- 21 sessions
- Goals:
  - Increase adherence to medication & decrease relapse
  - Enhance knowledge of bipolar disorder
  - Enhance communication and coping skills
  - Minimize the psychosocial impairment

(Miklowitz 2008)

Psychosocial

FAMILY-FOCUSED TREATMENT (FFT)

- Communication Enhancement Training (CET) targets four basic communication skills:
  - Expressing positive feelings
  - Active listening
  - Making positive requests for change
  - Expressing negative feelings about specific behaviors
- Solving problems:
  - Agree on the problem
  - Suggest several possible solutions
  - Discuss pros & cons
  - Plan & carry out best solutions
  - Praise efforts; review effectiveness

Psychosocial

FAMILY-FOCUSED TREATMENT (FFT)

- Primarily with adults.
- Positive results = children & adolescents
- Large RCT nearing completion.

(Miklowitz et al., 2007, Young & Fristad, 2007)

Psychosocial

CBT-CFT (RAINBOW)

- Adaptation of the FFT model to address needs of younger children & their families (8-12).
- 12 sessions
- Goal - identifying, evaluating, and changing maladaptive belief systems & dysfunctional styles of information processing
- Open trial = promising results

(Basco & Rush, 2005; Pavuluri et al., 2004)

Psychosocial

CFF-CBT/RAINBOW
Program Components

R	Routine
A	Affect regulation
I	I can do it!
N	No negative thoughts & live in the Now!
B	Be a good friend
O	Oh, how can we solve the problem?
W	Ways to get support

(Pavuluri et al., 2004)

Psychosocial

MFPG/IFP

- Like FFT & CFF-CBT focus on psychoeducation
- MFPG = 8 (90 min) concurrent group sessions;
- IFP = 24 (50 min) sessions
- Currently large, randomized trial underway
- Pilot studies of both delivery methods are positive

(Young & Fristad, 2007)

Psychosocial

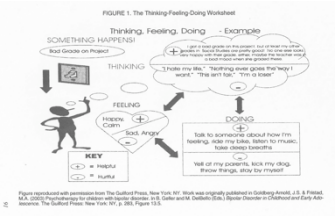
MFPG/IFP

- Healthy Habits
- Thinking, Feeling, Doing

(Fristad et al., 2007; Young & Fristad, 2007)

Psychosocial

MFPG/IFP



(Goldberg & Fristad, 2003; Fristad et al., 2007; Young & Fristad, 2007)

Psychosocial

DBT

- Originally established to work with highly emotional individuals (e.g., Borderline Personality, suicidal)
- Main focus is on emotional dysregulation
- 24 weekly sessions w/12 additional sessions over the course of 1 year
- Preliminary results are encouraging

(Goldstein et al., 2007)

Psychosocial

- What might be some behavioral goals for Jin?
- For Elisa?
- What techniques might be beneficial for Jin & Elisa?
- What are some things we need to consider when planning counseling interventions in the school for these students?

Psychosocial

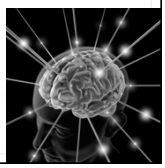
- Most treatment programs for use with children and adolescents share similar components &/or theoretical models.
- Many of the techniques can be useful in an educational setting.
- Knowledge about these programs can provide help to families looking for resources.

Interventions

Interventions

COGNITIVE DEFICITS

- Cognitive deficits are believed to be a better predictor of outcome than are symptoms.
- Neuropsychological functioning has been shown to be an important predictor of reading, writing & math.
- Attention:
  - selective, sustained, & set-shifting
- Memory
  - verbal, working, visuospatial



(Pavuluri et al., 2006; Dickstein et al., 2004)

Interventions

Comorbidity (in youth)

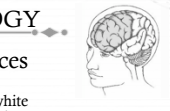
Disorder	Weighted Rate	(95% CI)
ADHD	62%	(29-87)
ODD	53%	(25-79)
Psychosis	42%	(24-62)
Anxiety	27%	(15-43)
CD	19%	(11-30)
Substance	12%	(5-29)

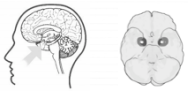
(Kowatch et al., 2005)

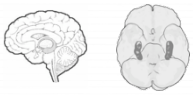
Interventions

ETIOLOGY

- Neuroanatomical differences
  - White matter hyperintensities.
    - Small abnormal areas in the white matter of the brain (especially in the frontal lobe).
  - Smaller amygdala
  - Decreased hippocampal volume





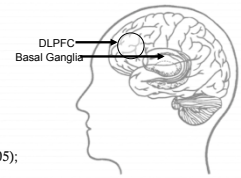


Hajek et al. (2005); Pavuluri et al. (2005)

Interventions

ETIOLOGY

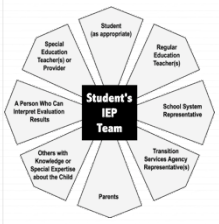
- Neuroanatomical differences
  - Reduced gray matter volume in the dorsolateral prefrontal cortex (DLPFC)
  - Bilaterally larger basal ganglia
    - Specifically larger putamen
- Neurotransmitter & metabolitic differences
  - Cortisol
  - BDNF
  - *N*-Acetyl Aspartate
  - *Myo*-Inositol
  - Choline
  - Creatine
  - GABA



Geller & DelBello (2008); Hajek et al. (2005); Pavuluri et al. (2005)

Interventions

TREATMENT PLANNING



- Prioritize needs
- Build on assessment data
- Utilize strengths
- Address challenges
- Understand difference between symptoms & choices
- Incorporate staff development
- Develop crisis plan

Interventions

ACCOMMODATIONS/MODIFICATIONS

- Mood
- Medications
- Relationship/Friendships
- Executive Functions
- Comorbidities
- Sleep disturbances

BIPOLAR DISORDER

AREA		POSSIBLE ACCOMMODATIONS/MODIFICATIONS & CONSIDERATIONS FOR PROGRAM[1]
Mood	Changes/Fluctuations Mania Irritability Sensory sensitivities Seasonal Component Low self-esteem	Designate a "go to" person for the student when he or she feels unable to cope. This should be a person the student trusts, feels safe with, and is involved in choosing. Give the student a "permanent pass" and a private signal that only he or she and the teacher know so that a private exit is possible in front of the rest of the class. Offer the student a private place to go to calm down when feelings are overwhelming. Schedule regular meetings (counseling) to work on calming and anger management techniques. Try to anticipate issues by reading student's affect and questioning student. Allow student to "opt out". Try to keep distractions to a minimum, tendency to become irritated by extraneous stimulation may increase when academic demands increase (e.g., noise from peers), if necessary, allow student a quiet place to work away from peers One-on-one aide to prevent situations that may cause the student to lose control. Conduct an FBA/FAA to identify triggers that cause the student to lose control & then develop a BSP/BIP to add to the IEP, which provides appropriate interventions for problematic behaviors. If part of student's treatment component involves light therapy, allow an area for student to receive treatment during the day. Allow student 5 minutes at end of period (or end of 1/2 hour) to talk to teacher or aide about any topic he or she wants, keep directing student in compassionate way back on track in interim. Have a person the student "checks-in" with at the start of the day to see how the day is starting out. If the day is rough, the student is allowed an alternative activity in order to transition successfully into the classroom. This may also just be used to have student connect with another adult on campus. Allow choice in activities. For example give list of possible tasks to complete and permit choice with which tasks to complete first, student will be given explicit time limit (e.g., 15 minutes of language arts activity, then switch to math worksheet). Provide as much physical activity as possible. Allow student to run "important" errands to the office or move things around the room. Be flexible and adaptable. Develop a token economy system. Provide student with much reinforcement and encouragement.

[1] Adapted from Papolos, J., Hatton, M. J., Norelli, S., Garcia, C. E., & Smith, A. M. (2007). The educational issues of students with bipolar disorder: Symptoms and accommodations. Retrieved from http://www.jbrf.org/edu/forums/accommodations.html; Hart, S. R. (2006, December). *Bipolar disorder: The school psychologist's role.* Workshop presented at the California Association of School Psychologists' (CASP) Winter Conference; Brock, S. E., Paopolo, M., Cumming, C., & Husted, D. (2002). Helping the student with ADHD in the classroom: A handout for teachers. In A. S. Canter, L. Paige, & S. A. Carroll (Eds.), *Helping children at home and school: Handouts from your school psychologist* (2nd ed.). Bethesda, MD: National Association of School Psychologists.

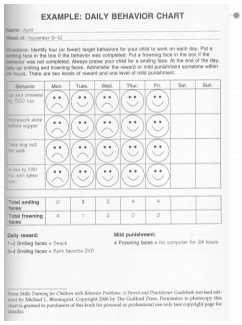
Interventions

STRATEGIES/IDEAS

- Inattentive/Hyperactive Behaviors
  - Antecedent Interventions
  - Token Reinforcement/Response Cost/Contingency Contracting/Self-Management
- Disruptive Behaviors
  - CBT
  - Skills Training

(Bloomquist, 2006; Mennuti et al., 2006; Morris & Mather, 2008)

Interventions


EXAMPLE: DAILY BEHAVIOR CHART

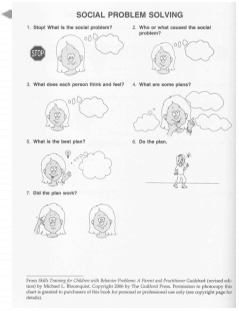
Interventions

STRATEGIES/IDEAS

- Anxious Behaviors
  - CBT (Coping Cat)
  - Modeling
  - Desensitization
- Friendship Challenges
  - Social Skills Training
  - Peer Mediated Interventions/Peer Tutoring

(Morris & Mather, 2007)

Interventions


SOCIAL PROBLEM SOLVING

Take home messages…

- Medications are recommended as first-line treatment, however, many concerns remain & more research is needed.
- Many of the psychosocial interventions proposed share many common elements, such as psychoeducation, development & maintenance of a healthy schedule, skill-building, and problem-solving.
- Many educational interventions appropriate with other populations can be appropriate when working with youth diagnosed with bipolar disorder. However, it is important to remember the distinction between choice & symptom.

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