

# PSYCHOTHERAPY IN BRAIN INJURY

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## **Part 1**

# **DIAGNOSIS OF EMOTIONAL AND NEUROBEHAVIORAL DISORDERS IN BRAIN INJURY**

# Five Major Determinants of Behavioral and Emotional Outcome in BI

- Neurobehavioral problems: (1) Impulsivity, disinhibition, anger control (2) Initiation deficits
- Emotional reactions: (1) Grief, (2) Depression, (3) Anxiety, (4) Irritability
- Cognitive deficits
- Social factors: peer group, family, socioeconomic status, criminal history, homelessness
- Pre-existing psychological factors: IQ, coping skills, adjustment, psychopathology

# Neurobehavioral Problems: Brain Injury and Behavior

- Brain injury affects regions of the brain recognized as important to the regulation of mood and behavior: Dorsolateral and orbitofrontal cortex, basal ganglia, amygdala, temporal lobe
- Behavior is especially affected by frontal/executive dysfunction

## **Cognitive Deficits Often Associated with Neurobehavioral Problems**

- Impaired social perception: Poor awareness of self/others; egocentricity.
- Impaired problem solving: Anticipating problems, planning solutions
- Impaired ability to learn from experience
- Impaired ability to regulate behavior.

# Initiation Deficits

- Personality change due to BI, reflecting motivational loss
- Loss of interest, emotions, energy, flattening of affect, dependency on others
- Diminished goal directed behavior
  - a. Lack of productivity
  - b. Lack of effort
  - c. Lack of time spent in activities of interest

# Impulsivity/Disinhibition

- Difficulty with behavioral self-regulation.
- Internal “censor” inadequate: result is a tendency to say and do things that are inappropriate.
- Difficulty seeing beyond own needs.

# Key Features of Neurobehavioral Deficits

- Failure to use cognitive abilities, esp reason, to guide one's behavior.
- Deficit in ability to regulate one's actions in accord with the needs of the moment.
- Results in behavioral excess (impulsivity) or behavioral deficiency (initiation)



# Psychological Effects of BI

- Psychological reaction to loss and impairment
- Emotional, behavioral and psychological effects of BI can be among the most enduring and disruptive barriers to community reentry.
- These can be the most responsible for problems returning to work, marital issues, problems maintaining role as parent, dissatisfaction with life.
- This is true not only of patients but their families as well.

# **Emotional Reactions-Major Depression in Moderate and Severe BI**

- Depression is common result of BI
- 25 to 35% of all BI patients are depressed on standardized measures.
- If restrict to just the first year after injury, MDD is seen in approximately 50% of BI patients.

# Types of Emotional Reactions in BI

- Grief/Bereavement
- Adjustment Disorder with Depressed Mood
- Major Depressive Disorder
- Anxiety Disorder
- Anger management problems

# Grief/Bereavement

- Grief: Normal human reaction with feelings of emptiness and loss, preoccupations with thoughts of the loved one. Self esteem remains intact.
- DSM-V does not include grief over loss due to injury; only grief over loss of a loved one. Major problem for BI.

# DSM-V: Complicated Bereavement

## A. At least one of the following:

- Persistent yearning for the deceased
- Intense sorrow
- Preoccupation with the deceased
- Preoccupation with circumstances of the death.

# Complicated Bereavement: Reactive Distress to the Death

B. And at least 6 of the following:

1. Difficulty accepting the death
2. Disbelief, emotional numbness
3. Difficulty with positive reminiscing
4. Bitterness, anger
5. Maladaptive self-appraisals (e.g, self blame)
6. Excessive avoidance of reminders

# Complicated Bereavement: Social Identity Disruption

7. Desire to die
8. Difficulty trusting others
9. Feeling alone or detached from others
10. Feeling that life is meaningless or empty
11. Confusion about one's role in life
12. Difficulty or reluctance to pursue interests since the loss

# Adjustment Disorder with Depressed Mood

A. The development of emotional or behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s).

B. These symptoms or behaviors are clinically significant as evidenced by either of the following: (1) marked distress that is in excess of what would be expected from exposure to the stressor, (2) significant impairment in social or occupational (academic) functioning.



# DSM-V Criteria for Major Depressive Disorder

## A. Five or More of the Following Symptoms

1. Depressed mood
2. Markedly diminished interest or pleasure
3. Significant weight loss or gain
4. Insomnia/hypersomnia
5. Psychomotor agitation or retardation
6. Fatigue or decreased energy

7. Feelings of worthlessness and guilt
  8. Diminished ability to think or concentrate
  9. Recurrent thoughts of death or suicide
- B. Symptoms cause clinically significant distress or impairment
- C. Not attributable to the physiological effects of substance abuse or another medical condition.

# Problems with Diagnosing Major Depression in BI Patients

1. Many depressive symptoms overlap with problems caused by a general medical conditions and neurological impairment from BI.
2. Many depressive symptoms overlap with medication side effects.

# Potentially Confusing Neurological and Emotional Symptoms

## Neurological

Impulsivity/Disinhibition

Lack of awareness

Apathy/Lack of initiation

Perseveration

## Psychological

Selfish, ADHD, Antisocial

Denial

Depression/Withdrawal

Compulsiveness

# Potentially Confusing Medical and Emotional Symptoms

## Medical/Medications

- Fatigue
- Sedative drugs
- Psychostimulant

## Psychological

- Depression
- Depression
- Anxiety/Fear

# Potentially Confusing Symptoms of Grief and Depression

## Grief

1. Sadness
2. Inactivity
3. Loss of interest
4. Focus on soothing activities

## Depression

1. Sadness
2. Inactivity
3. Loss of interest
4. Focus on soothing activities

# Grief vs. Depression: DSM-V Suggestions

## Grief

1. Emptiness and loss
2. Tends to decrease
3. Preoccupation with thoughts of loss
4. Self esteem intact

## Depression

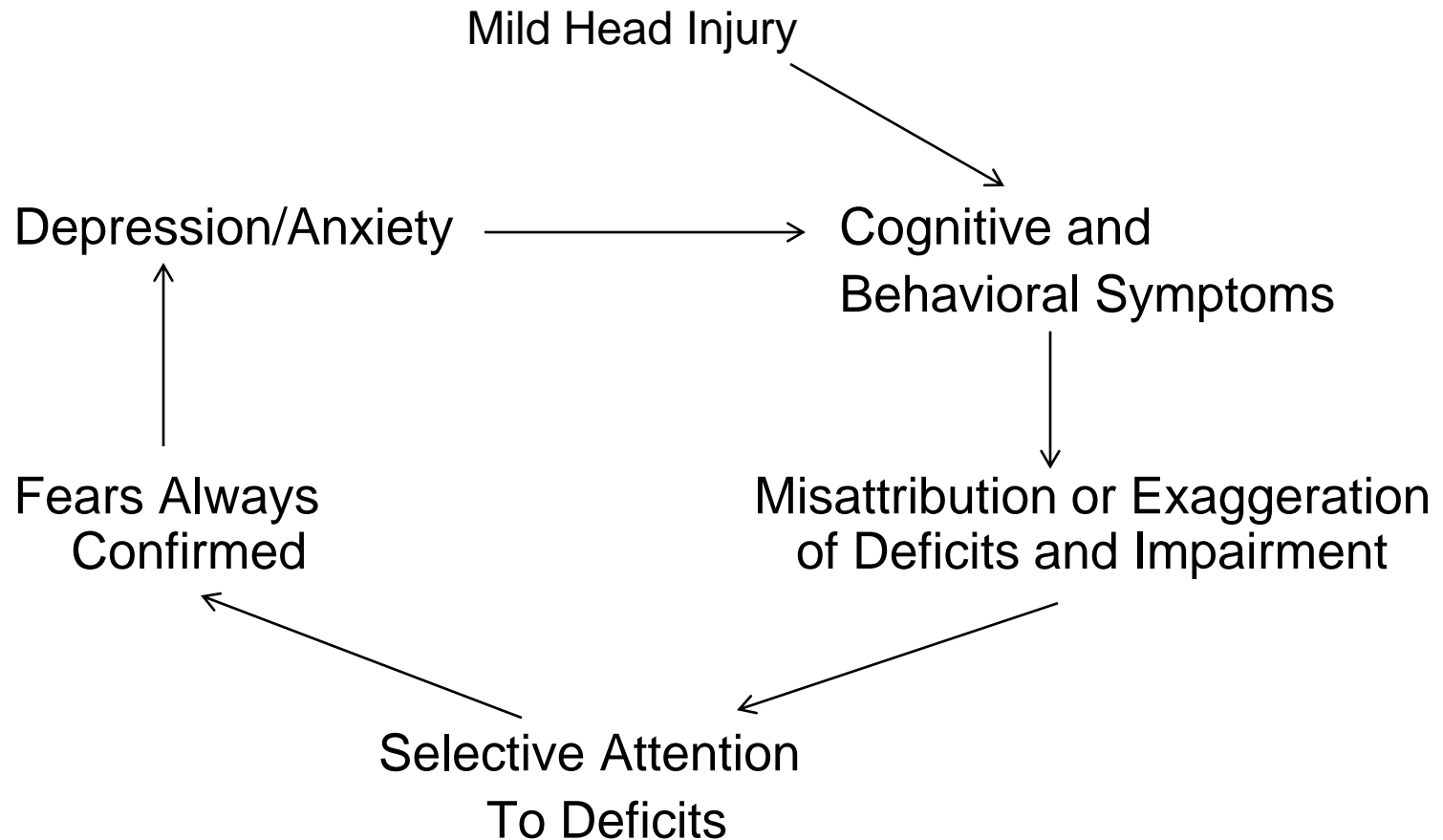
1. Unable to expect happiness/pleasure
2. Tends to persist
3. Preoccupation with self-criticism/pessimism
4. Low self-esteem

# How Distorted Thinking Contributes to Depression

- Rumination on negative self evaluation
- View of self as defective
- View life as resulting in loss or failure
- Selective attention to negative events
- Tendency to minimize positive events and dismiss praise



# Distorted Thinking and Mild BI



# Detecting and Diagnosing Emotional Problems in BI

- Need rapport and empathic listening
- Use of observation and family data
- Use validated questionnaires
- Consider other factors, e.g., other emotional problems, sleep problems, substance abuse, unemployment, financial problems, poor social functioning, negative thinking, medical problems.

- Distinguish MDD from sadness, grief
- Ask specific questions about depressed mood, loss of interest, psychosocial functioning
- Look for evidence of symptom denial vs. anosognosia, vs. symptom exaggeration

## **Part 2**

# **TREATMENT OF EMOTIONAL AND NEUROBEHAVIORAL PROBLEMS IN TRAUMATIC BRAIN INJURY**

# Strategies for Psychotherapy of Neurobehavioral Deficits

- Increase awareness of negative behaviors: talking too much, insensitivity, aggression.
- Increase awareness of how they impact goals
- Recruit reasoning ability and related cognitive functions to help regulate behavior and social communication.
- Reinforce positive skills/behaviors: listening, turn taking, boundary issues

# Techniques for Increasing Awareness of Neurobehavioral Deficits

- Structured feedback
  - Verbal
  - Video/audio
  - Rating scales
- Self-monitoring exercises

# Techniques for Implementing Change with Neurobehavioral Problems

- Structured problem solving strategies
  - Stop-Think-Plan
  - Goal-Plan-Do-Review
- Role playing, modeling
- Group psychotherapy
- Practice in the community

# Stages in the Psychotherapy of Emotional Disorders in BI: Step 1

- Step 1: Increase awareness, education, initiate grief process
  1. Discuss impairment: Get collateral information
  2. Increase patient awareness of deficits
  3. Work on cognitive rehab if needed for psychotx



# **Stages in the Psychotherapy of Emotional Disorders in BI: Step 1 (cont'd)**

4. Work on grief, if appropriate
  - Recognize and acknowledge the loss
  - Experience the pain associated with the loss.
  - Review old life, remember it realistically
5. Begin to work on depression, if able.

# Stages in the Psychotherapy Emotional Disorders in BI: Step 2

- Step 2: Restructuring, address negative thinking
  1. Continue focus on awareness and grief
    - Begin to let go of attachments to the old life
    - Begin to adapt to the new world without forgetting the old
    - Reinvest and re-engage in the new life
  2. Cognitive rehabilitation as needed

# Stages in the Psychotherapy of BI: Step 2 (cont'd)

2. Monitor reactions: as awareness increases, so may depression/distorted thinking, motivation wanes
3. Exercises to gain control: relaxation training, breathing techniques, brief time out.
4. Improve quality of life, engagement in the community, healthy activities
5. Correct distorted thinking

# Strategies in the Psychotherapy of Distorted Thinking

- Identify assumptions and underlying thoughts
- Determine their accuracy and fairness
- Counteract dysfunctional beliefs and thoughts
- Accept reality

# Step 1: Identifying the Types of Distorted Thinking

- Self-critical depression
  - “If I’m not perfect, then I’m a failure”
- Abandoned/rejected depression
  - “If someone doesn’t love me, I’m unlovable”
- Frightened depression
  - “If I’m not in complete control, I’m out of control”
  - “If I can’t do X, my life is ruined”

## **Step 2: Determine and Fairness of Underlying Thoughts**

- Is this really true?
- Whose rule is this? Where did it come from?
- What is the evidence?
- What would I think about someone else in the same situation?
- What would a reasonable person do?

## **Step 3: Counteracting Distorted Thoughts**

- Become aware of emotional triggers
- Challenge every instance
- Provide a more accurate response
- Be prepared to do it constantly at first
- Practice in session, then in the community
- Learn relaxation training to enhance skills

# **Step 4: Acceptance**

## **The Job of the Rehab Patient**

- Work as hard as you possibly can to improve as much as you can
  - Recovery of function
  - Compensation for those functions that don't recover
- Accept whatever problems remain after the recovery is complete



# **Spiritual Considerations in Acceptance of BI**

- To foster acceptance, it is always best to link clinical efforts to the world-view of the patient. This includes spiritual beliefs.
- This strengthens the clinical recommendations and provides a powerful durability and generalization.

# **Biblical References on Suffering and Acceptance**

- 2 Corinthians 12: 7-10, “When I am weak then I am strong”
- Romans 8: 28, “All things work for good”
- Romans 5: 3-5, “Affliction produces character”
- Hebrews 12: 7-11, “Endure your trials as discipline”