

Common
Comorbidity
With
Developmental
Disabilities

Robert P. Holloway, M.D.

USC University
Center for
Excellence in
Developmental
Disabilities



What is **order**?
What is **disorder**?
What is **morbidity**?
What is **comorbidity**?

What is the difference
between a **brain** illness
and **mental** illness?

How can a **brain** have
multiple **illnesses**?

Common Symptoms, Different Disorders

Irritability Depression Anxiety
Sensitive Obsession
Compulsion Delusion Hallucination
Mania Manipulation
Inattention **impulsive** Hesitant...
Ritualistic Poor Social Skills
disorganized Unmotivated
....**Forgetful**

Genetics
Epigenetics
Environment
Trauma
Social Influence
Other Disorders
Medications

Learning Disorder + ADHD + OCD
Autism + Psychosis + Depression
ADHD + Tics + OCD
Intellectual Disability + Anxiety + Pain
Trisomy 21 + Seizures + Digestive Problems
Mitochondrial Disorder + Intellectual
Disability + Pain

Gene defects in: 22q11.2,
1q21.1, and 15q13.3 shared in:

- Schizophrenia
- Autism
- ADHD
- Intellectual Disability

Trisomy 21 comorbidities

- Autism 30%
- Celiac Disease 5-12%
- ADHD
- Intellectual Disability
- Alzheimer's

Autism comorbidities

- Intellectual Disability
- Schizophrenia/psychotic disorders
- OCD and anxiety disorders
- Digestive disorders

Fetal Alcohol Syndrome Comorbidities

- Autism
- ADHD
- Disorders of Impulsivity (disruptive mood dysregulation, oppositional defiant)
- Depression and anxiety, poor self-esteem

How can these brain disorders have so much comorbidity?

- Morbidity can be damage and loss of function, as opposed to a specific disease.
- Damage of the organ (brain) can cause many clusters of symptoms, regardless of the cause of the damage.
- Epigenetics are just being discovered. So far we know that stress and damage can turn on and off genes, causing disorders to occur.

Chronic Pain Comorbid With

- Autism
- Cerebral Palsy
- Mitochondrial Disorder
- Intellectual Disability

Signs of Pain

- Self Report
- Loss of functioning: changes in sleep, appetite, engagement with loved ones.
- Increased self injurious behaviors
- Worsening of mood

Depression

- Can occur in all developmental disorders.
- Can worsen the outcome of many disorders.
- Increases inflammation and production of stress hormones that worsen general health.
- Can be treated with medication, psychotherapy, exercise.

Anxiety

- Can be seen in all developmental disorders.
- Can frequently exist with Pain and Depression and worsens both.
- Increases adrenaline, which worsens chronic pain and multiple health conditions.
- Decreases sleep, functioning.
- Can look exactly like pain.

Types of Anxiety

- Panic
- Obsession/Compulsion
- Post Traumatic Stress Disorder (incl medical trauma)
- Phobias

Why be concerned over which disorder is which?

- There are some differences in outcomes by disorder.
- There are some differences in treatments for different disorders.
- But still recognize that damage is damage, and that we have to focus on rehabilitation.

What can be done?

- Watch for symptoms and don't expect an individual to fit neatly into one category.
- Recognize that our work (parent and providers) is minimizing damage and promoting balance.
- Recognize that there won't be one answer to "cure" such a complicated organ as the brain.

Treatment Options?

- Psychotherapy: Behavioral Modification, CBT
- Physical Therapy, Acupuncture, Massage
- Medication: Antidepressants, Mood stabilizers, Anti epileptic, Stimulants

Antidepressants

- Chronic Pain
- Obsession/Compulsion
- Anxiety/Panic
- Insomnia
- Depression/Irritability/Self-harm

Antipsychotics

- Psychosis (Hallucinations/Delusions)
- Repetitive Behaviors in Autism, etc
- Mood Stabilization

Anticonvulsants

- Seizures
- Mood Stabilization
- Pain/Abnormal Movement

Sedatives

- Spasm/Chronic Pain
- Agitation/Dysregulation
- Insomnia

Stimulants

- ADHD
- Frontal Lobe Dysfunction
- Activation
