Special Topics in Treating Eating Disorders

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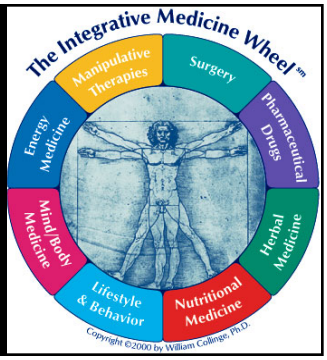
Integrative Medicine is a healing-oriented discipline that takes into account the whole person – body, mind and spirit – including all aspects of lifestyle. It emphasizes the therapeutic relationship and makes use of both conventional and alternative therapies.



1 The Basics
- Early identification of Axis I and II diagnoses
- Stress Management
- Sleep
- Social Support

2 Pharmaceuticals
- Used when necessary
- Stabilization of patients

8 CORNERSTONES
How to treat the whole person

3 Integrative Therapies
- Emotional release
- Deep relaxation
- Integration of mind-body

4 Skills training for emotional regulation
- Practical skills
- Treatment of Axis II issues

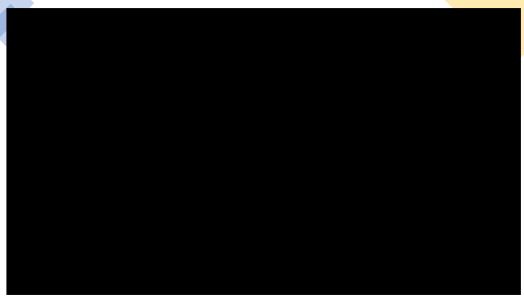
8 CORNERSTONES
How to treat the whole person

5
- Nutrition Program:
  - Shift relationship
  - Improve autonomy
  - Root cause
  - Digestion/Absorption

6
- Exercise
  - Learn healthy behaviors
  - Get in touch with physical body
  - Learn body cues

7
- Psychotherapy
  - Gain insight into behaviors
  - Food/mood
  - Body image
  - Getting at root causes

8
- Nutraceuticals
  - Support medication effects
  - Decrease side effects
  - Special qualities for ED and Addictions



World Health Organization

- Country specific estimates are consistently higher for BED
- Median age of onset – late teens to early 20's (slightly younger for BN)
- Persistence is higher for BN vs. BED
- Prevalence = 1% for BN; 1.9% for BED
- Females > Males
- Equivalently high BMI in both BN and BED in US, Latin America, Western Europe and New Zealand

Eating Disorders in Canada

- Anorexia – 0.5% - 4% of women
- Bulimia – 1%-4% of women
- Binge eating disorder – 2% of all people

- Statistics Canada

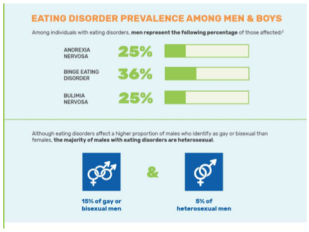
- Anorexia in males – 0%
- Bulimia in males – 0.2%
- BED -

- Ackard DM, Fulkerson JA, Neumark-Sztainer D., Prevalence and Utility of DSM-IV Eating Disorder Diagnostic Criteria among Youth. Int J Eat Disord 2007; 40:409-417.

Eating Disorders in Males

Eating Disorders in Males

- Lifetime prevalence:
  - Anorexia = 0.3 %
  - Bulimia = 0.5 %
  - Binge eating disorder = 2 %
- The National Association for Males with Eating Disorders estimates that 25 to 40 percent of people with all eating disorders are males.
- 40% of those with binge eating disorder
- 67% of those with ARFID



Eating Disorders in Males

Males and body image

- Research study results vary widely
- Most males would like to be lean and muscular = the "ideal" male body time
- Sexual objectivication of men in the media increases the drive for muscularity
- Drive for muscularity:
  - 25% of normal weight males feel they are underweight
  - 90% of teenage boys exercise to "bulk up"

Muscle dysmorphia

- Muscle dysmorphia:
  - Subtype of body dysmorphia
  - Affects male body builders
  - Compulsions:
    - Hours in the gym
    - Money spent on supplements
    - Abnormal eating patterns
    - Use of steroids

Males with Eating Disorders

- Males vs. Females with ED
  - Males had more depression (67% vs. 43%)
  - Lower likelihood of prior psychiatric hospitalization (10 % vs 21%)
  - No difference in history of suicidal ideation or suicide attempts
- Study by Bramon-Bosch of 30 males and 30 females (European Study at The Maudsley Hospital)
  - Males: 33% anorexia nervosa, 50% bulimia and 17% with Eating disorder, not otherwise specificied
  - Stronger psychiatric co-morbidity and higher rates of suicide attempts
  - No differences in severity of eating disorder

Eating Disorders are Diverse

- 16% of transgender college students
- 13% of women over 50 engage in eating disorder behaviors
- Active duty military: 5.5% of women and 4% of men had an eating disorder

Eating Disorders in People of Color

Historically eating disorders perceived as affecting white women.

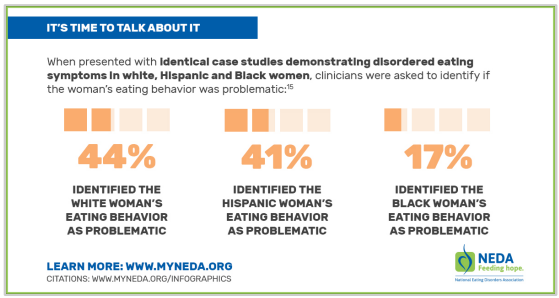
Marques et al. (2011) reported more functional impairment in African Americans with Anorexia, Bulimia compared to Whites in days out of role, cognition, social and role functioning

Gordon et al. (2006) showed that clinicians may have **race-based stereotype**s about eating disorders that could affect their ability to diagnose eating disorders in African-Americans

There are significant ethnic disparities in access and utilization of treatment for eating disorders

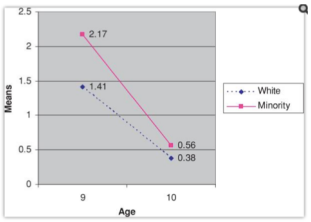
Eating disorders in people of color

- Black teens are 50% more likely to have bulimic symptoms of binging and purging
  - (Goeree, Sovinsky, & Iorio, 2011)
- Hispanic teens were more likely to have bulimia nervosa compared to non-Hispanic peers.
- Higher prevalence of binge eating disorders in all minority groups.
  - (Swanson, 2011)
- Native American teens – 48% attempting to lose weight



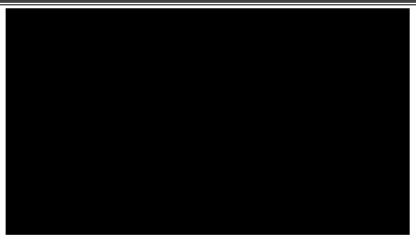
Disordered eating and body image dissatisfaction

- Minority girls (ages 9, 10) had higher eating disturbance than white girls
  - DeLeel, et al. 2009
- Some studies show that there are fewer differences between ethnic groups than previously reported.
  - Gentile, et al. 2007



Significant interaction between age and race on eating disturbance.

Colorism



"Good" Hair

Diversity is "diverse"

Prevalence of ED in PoC

- In one study of high school students:
  - Native Americans 14.2%
  - Hispanics 13.1%
  - Whites 10.1%
    - Smith and Krejci 1991
- Eating disorders are one of the most common psychological problems facing young women in Japan.
- 74% of American Indian girls reported dieting and purging with diet pills
- Essence magazine, in 1994, reported that 53.5% of their respondents, African-American females were at risk of an eating disorder

Emotional Eating

Emotional Eating

- **Emotional hunger**
  - Comes on suddenly and may feel overwhelming and urgent
  - Associated with a craving for comfort foods
  - Usually leads to mindless eating
  - Doesn't leave you feeling satisfied even when you're full
  - Often leads to feelings of guilt, shame, or regret

What we Know about Emotional Eating

- Low blood sugar (hypoglycemia) can cause **emotions to be amplified**
  - Causes of hypoglycemia
    - Infrequent meals
    - High intake of processed carbohydrates
    - Diet low in protein
    - Substances: sugar, alcohol, caffeine
- **Stress, low blood sugar, intense emotions are all caused by release of adrenaline in response to the fight / flight response**
- **Dieting** makes **Emotional Eating WORSE**
  - Konttinen H. Am J Clin Nutr. 2010 Nov;92(5):1031-9

What is Emotional Eating?

- Using food to make yourself feel better or to fill emotional needs
- When food is your primary coping mechanism for any emotion
  - To calm or soothe yourself
  - When sad, mad, anxious, happy, bored, lonely, etc.

What we know about Emotional Eating

Not getting enough sleep is associated with:

- The brain's command centers to lose control over the emotional centers
- Increase in emotional responses to challenging situations
- Misreading of facial expressions and other emotional cues
  - Sleep. 2010 Mar;33(3):335-42.

Orthorexia

Orthorexia

- Not formally recognized in the DSM-V
- Orthorexia involves restriction of the amount and variety of foods eaten, making malnutrition likely
- Orthorexia = "correct diet"

Orthorexia - Quiz

- Do you ever wish you could stop thinking so much about food and spend more time thinking about your loved ones?
- Are you constantly questioning food and considering how foods are unhealthy for you?
- Do you feel guilt or shame when you stray from your perfect diet?
- Does it seem physically impossible to eat a meal prepared by someone other than yourself?
- Do you feel "in control" when you stick to your planned, healthy, pure diet?
- Do you look down on others who eat less healthfully than you?

Orthorexia – signs and symptoms

- Compulsive checking of ingredient lists and nutritional labels
- An increase in concern about the health of ingredients
- Cutting out an increasing number of food groups (all sugar, all carbs, all dairy, all meat, all animal products)
- An inability to eat anything but a narrow group of foods that are deemed 'healthy' or 'pure'
- Unusual interest in the health of what others are eating
- Spending hours per day thinking about what food might be served at upcoming events
- Showing high levels of distress when 'safe' or 'healthy' foods aren't available
- Obsessive following of food and 'healthy lifestyle' blogs on Twitter and Instagram
- Body image concerns may or may not be present

Orthorexia

Diabulimia

Diabulimia

Diabulimia

- An eating disorder in which people with type 1 diabetes deliberately give themselves less insulin than they need or stop taking it altogether for the purpose of weight loss.
- As many as 20% of women with type 1 diabetes have diabulimia
  - Chelvanayagam S. 2018.
- Strong social media component
  - Stalte et al. 2018
- Case report of using hypoglycemia to control binging.
  - Moosavi 2015.

Diabulimia

- A1c of 9.0 or higher on a continuous basis
- A1c inconsistent with meter readings
- Unexplained weight loss
- Constant bouts of nausea and/or vomiting
- Persistent thirst and frequent urination
- Low sodium and/or potassium
- Frequent bladder and/or yeast infections
- Irregular or lack of menstruation
- Deteriorating or blurry vision
- Fatigue or lethargy
- Dry hair and skin
- Multiple DKA or near DKA episodes

Diabulimia – Warning Signs and Symptoms

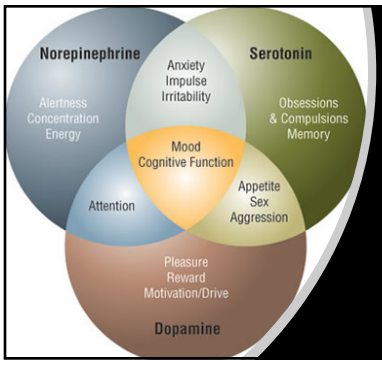
- Increasing neglect of diabetes management
- Secrecy about diabetes management
- Avoiding diabetes related appointments
- Fear of low blood sugars
- Fear that "insulin makes me fat"
- Extreme increase or decrease in diet
- Extreme anxiety about body image
- Restricting certain food or food groups to lower insulin dosages
- Avoids eating with family or in public
- Discomfort testing/injecting in front of others
- Overly strict food rules
- Preoccupation with food, weight and/or calories
- Excessive and/or rigid exercise
- Increase in sleep pattern
- Social isolation
- Depression and/or anxiety
- Not taking medications regularly

Diabulimia – Long-Term Consequences

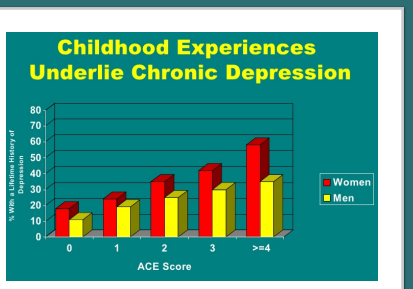
- Ocular damage
- Organ damage
- Syncope
- Neuropathy
- Chronic diarrhea or constipation
- Coma
- Stroke
- Death

Diabulimia - Consequences

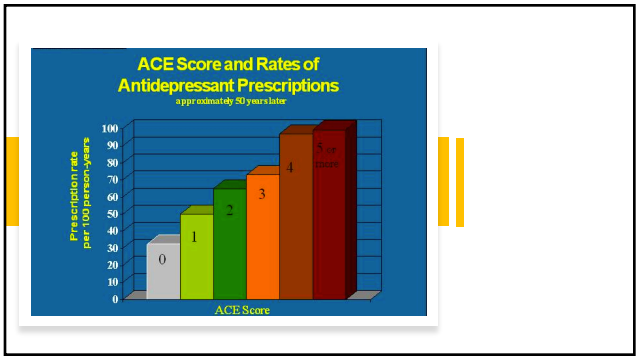
- Poor wound healing
- Frequent staph and bacterial infections
- Yeast infections
- Atrophy of muscles
- Irregular menses
- Severe dehydration
- Imbalance of electrolytes
- DKA

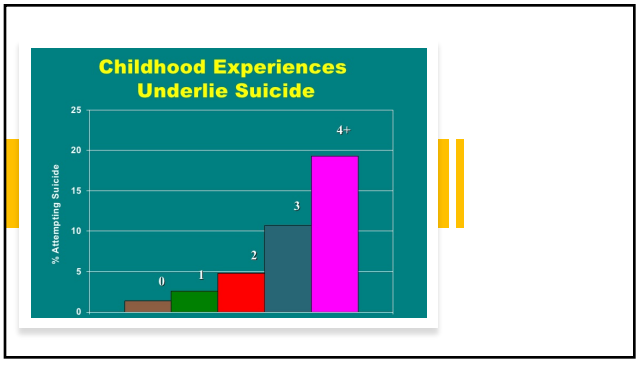


Mood and Anxiety Disorders with Eating Disorders



Persons with 4 or more ACEs are 4.5 times more likely to develop depression





Co-Occurring Mood and Anxiety Disorders

Mood Disorders

- Lifetime risk in Anorexics = 80% / 42%
- Lifetime risk in Bulimics = 71%
- Lifetime risk in BED = 46%
  - (Uniacke and Broft, 2016; Telch1998; Welch, 1996)

Anxiety Disorders, ADHD, OCD, Panic

- AN and BN - >50%; BED – 70%

Personality Disorders - 21-97%

- Cluster B most common with BN/BED (dramatic/erratic)- 20%
- Cluster C most common with anorexia (avoidant/anxious)

PTSD - 47% for Bulimia; 62% for Anorexia in inpatient pop)

- (Telch1998; Welch, 1996; Herzog 2007; Russell 2008)

Anxiety and Eating Disorders

- Methodologically rigorous controlled study of 271 women with AN and BN:
  - Lifetime co-morbidity with **at least one anxiety** disorder: ~ **70%** (significantly > controls)
  - Most **anxiety disorders persist** after recovery
  - In approximately **half** of co-morbid cases, the **anxiety disorder *precedes* the ED**

Patton GC et al. Eur Child and Adol Psychiatr. 2003; 12 (Suppl 1):I25

Eating disorders and depression

- "Children in the Community Study"
  - Depression increases the risk for an eating disorder 8-fold
  - Depression during early teen years leads to later eating disorder development
  - Eating disorders during adolescence increases risk for depression 4-fold and for anxiety 4-fold

Johnson JG et al. Arch Gen Psychiatry 2002; 59:545
Johnson JG et al. J Consulting and Clin Psychol 2002; 5:1119

Significance

- It is important to identify co-occurring mood and anxiety disorders in those with eating disorders because:
  - Many mood-related symptoms may improve with treatment of malnutrition, binge eating or purging
  - Several symptoms of depression including fatigue, insomnia, poor concentration and dysphoria may be due to malnutrition
  - Those who are in recovery from an eating disorder have higher rates of depression, anxiety and obsessive / compulsive behaviors than those without a history of an eating disorders

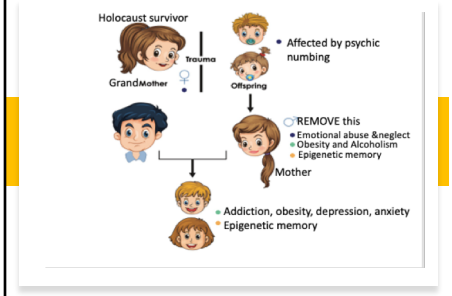
http://www.psychiatrictimes.com/special-reports/interplay-mood-disorders-and-eating-disorders

Beyond Childhood Trauma

TOXIC STRESS

A force that disrupts brain architecture

Historical and Intergenerational Trauma



Intergenerational Trauma

Trauma, Class and Race

- **Social class and childhood stress.** Beginning in infancy, lower social class children are more likely to have strong, frequent, or prolonged exposure to major traumatic events, the frightening or threatening conditions that induce a stress response.
- **Income and childhood stress.** The lowest-income children are more likely to be exposed to frightening or threatening experiences than other children.
- **Race and childhood stress.** Black children are more likely than white children to be exposed to frightening or threatening experiences.
- **Childhood stress and depressed outcomes.** Independent of other characteristics, children exposed to more frightening and threatening events are more likely to suffer from academic problems, behavioral problems, and health problems


Historical Trauma in Native Populations

- A breakdown of traditional Native family values
- Alcohol and other substance abuse
- Depression, anxiety, and suicidality,
- Child abuse and neglect and domestic violence,
- Posttraumatic stress disorder,
- General loss of meaning and sense of hope,
- Internalized oppression, self-hatred

Historical Trauma

Four distinct assumptions underpin this theory:

(1) mass trauma is deliberately and systematically inflicted upon a target population by a subjugating, dominant population;

(2) trauma is not limited to a single catastrophic event, but continues over an extended period of time;

(3) traumatic events reverberate throughout the population, creating a universal experience of trauma; and

(4) **the magnitude of the trauma experience derails the population from its natural, projected historical course resulting in a legacy of physical, psychological, social and economic disparities that persists across generations.**

Historical Trauma

- Definition: *"the cumulative and collective psychological and emotional injury sustained over a lifetime and across generations resulting from massive group trauma experiences."*
- Persistent trauma among Holocaust Survivors – 1960's
- Research on American Indians and Native Alaskans
- Historical Trauma is a Macro-Stressor – **A-A have sustained traumatic psychological and emotional injury as a direct result of slavery, perpetuated by social / institutional inequality, racism and oppression**.
  - Sotero M, 2006

Historical / Ancestral Trauma

- Populations historically subjected to long-term, mass trauma exhibit a higher **prevalence of disease even several generations after the original trauma occurred.**
  - Disease is from both physical and psychological stressors
  - There are political and economic determinants of health and disease – unjust power relationships and class inequity
  - There is a multilevel dynamic and interdependence of present and past life course factors that cause disease.

It's not about food or weight

Eating disorders are a solution, not the problem

Trauma, Attachment and the Brain

- Hyperactive stress response results from insecure attachment and from ACEs
- Brain development is altered by ACEs →dysfunctional and chaotic organization
  - Increase in impulsive and compulsive behaviors (lack of PFC governance)
- Lower brain functions take over: they govern eating, self-soothing, self-harm
  - Use food, self-harm, etc. to regulate the lower brain (norepi, dopamine, serotonin) stress response and to self-soothe
- **Leads to a lifetime of adaptive behaviors – SUD, ED, Depression, Anxiety, ADD and physical health problems**

Attachment Insecurity

Historical Trauma

- Historical trauma requires subjugation:
  - Overwhelming physical and psychological violence
  - Segregation and/or displacement
  - Economic deprivation
  - Cultural dispossession
- EPIGENETICS
  - How experiences from a previous generation can affect who we are
  - Epigenetic changes may be passed down from parent to child, directly affecting genes for obesity, diabetes, anxiety and depression
- **Post Traumatic Slave Syndrome PTSS**

Eating Disorders and Attachment

Avoidant attachment

- Child grows up in an emotional desert
- Not in touch with body sensations

Ambivalent attachment

- Child grows up in emotional fog / soup
- Emotions and body sensations may feel overwhelming

Disorganized attachment

- Child may be disconnected from emotions or may dissociate from emotions when under stress
- **Body sensations and emotions associated with memories may trigger flashbacks** of trauma or loss, and lead to **dissociation**.

Connecting the dots to Eating Disorders and Mood and Anxiety Disorders

Genetic Risk

Adverse childhood experiences → Attachment PLUS

Reward Deficiency Syndrome

- **Reward Deficiency Syndrome or RDS** is brain disorder characterized by a clinically significant deficiency of the essential neurotransmitter--Dopamine in the brain's Reward Center, specifically the midbrain and prefrontal cortex. It is primarily acquired genetically but can also result from prolonged stress.

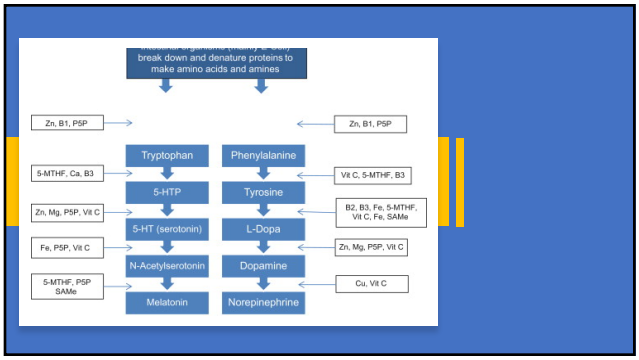
Reward deficiency

Reward system of the brain is not working properly and results in lack of reward for normal activities.

- Causes
  - Genetic – Disorders of RDS: ADHD, Tourette, Asperger's, OCD; Also have genetic risk for Addiction
  - Prenatal conditions: mother using alcohol or drugs, malnutrition
  - Malnutrition – low calorie dieting, poverty, food allergy, sensitivity
  - Severe or ongoing stress

RDS

- Multiple drug-seeking behavior
- Impulsivity and compulsivity
  - severe alcoholism, cocaine, heroin, marijuana and nicotine use
  - glucose bingeing
  - pathological gambling
  - sex addiction
  - ADHD
  - Tourette's Syndrome
  - autism
  - chronic violence
  - posttraumatic stress disorder
  - schizoid/avoidant cluster, conduct disorder and antisocial behavior



Chronic Abstinence Syndrome	Amino Acids
Anxiety, stress	GABA, taurine, tryptophan
Low energy, apathy	L-tyrosine
Poor concentration, memory, brain fog	L-tyrosine
Hypersensitivity	D- or L-phenylalanine
Insomnia	L-tryptophan, 5-HTP, GABA, taurine
Cravings	L-glutamine, GABA, tryptophan
Depression, anhedonia	L-tyrosine

Lovingkindness

May I be filled with loving kindness
May I be safe from inner and outer dangers
May I be well in body and mind
May I be at peace and happy

- Jack Kornfield

FREE meditation: bit.ly/crossmd

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