Etiology & Pathophysiology

Thomas & Schaefer: Ch. 3

Chavez & Insel pp. 6-8

Outline

Societal-cultural

Psychosocial

Biological

3 elements of self-perception

Physiology

Effect of genetics & environment

Risk promoters & protectors

Etiology & Risk Factors

**Inability to cope & express feelings related to:**

Rejection

Loss

Insecurity

Ridicule

Discrimination

Abuse

Family crisis

**Societal-cultural influences:**

Thin/muscular = beauty, happy, good, success, loved & power

Reinforced by media

http://www.youtube.com/watch?v=ju8s3-tGyXg

Why do some develop EDs while others do not?

Psychosocial Factors

Perfectionist, achievement-oriented

Independent & persistent

Tolerant of pain & discomfort

High self-expectation yet low self-esteem

Dysfunctional families

Overbearing/controlling parents

Physical or sexual abuse

Parental alcohol or drug abuse

Food, Body Shape & Body Weight

Use food as a:

Substitute for love

Companion

Buffer against stress

Friend/enemy

Obsession w/ food & shape divert energy from feeling:

Low self-esteem

Shame

Helplessness

Incompetence

Social Anxiety

Biological influence

Imbalance in hormones & neurotransmitters

Serotonin

Melatonin (precursor is serotonin)

Norepinephrine

Endorphins

Cholecystokinin (CCK)

Early onset of menarche (< 12yr)

Males: late onset of puberty

Predisposition for obesity or thinness

Those most prone:

Believe the cultural **myth** that thinness/muscularity is necessary to be taken seriously, to have success, clout & to fit in

Not self-accepting

Barely like who they are

Often feel like “losers”

Additional risks for athletes

Personality traits

Tolerant of discomfort & pain

Weight loss & weight cycling

Sudden increase in training volume

Decrease appetite leading to wt loss

Training intensity correlated to ED

Pressure from coaches, teammates, parents

Stress & injury may feel helpless, vulnerable & out-of-control

Injury or illness

Change or loss of coach

Moving away from family/friends

Change in training load: off-season

3 elements of self-perception

Self-image = your sense of identity

Body image =

what you see when you look in the mirror

& how comfortable or satisfied you are w/ your shape, size and appearance

Self-esteem = feelings you have about yourself

Self-image - 1st link

Image of who you are and who you want to become - your identity

Self-image changes:

Influences, outside pressures, values & beliefs

Takes time to develop an underlying self-image that results in a feeling of balance & contentment

Many ups & downs: adjust to external pressures and internal desires & arrive at a **comfortable** match

Body image - 2nd link

How comfortable you are w/ the size, shape & appearance of your body

Changeable

What **you** see when you look in the mirror may be different than what others see

BI is inaccurate: what you think you see may not be real

Mood affects BI and BI affects mood

When “ideal” body image clashes w/ what you think you see when you look in the mirror

Takes time to develop - changes w/ adolescence

Influenced by the 3 P’s

Parents, peers & press

Self-esteem - 3rd link

Feelings you have about your self and linked closely to self-image & body-image

Clash when you can’t look the way you think you’re supposed to, no matter how hard you try -> self-doubt, feelings of inadequacy

Low self-esteem makes it hard to acknowledge & express feelings - both risk factors

Difficult to develop, even harder during adolescence

Keep emotions to self

Doubt validity of emotions you do feel

Question the right to have such feelings

Say/wonder “who could like/love me?” or “I don’t deserve to be liked/loved.”

Elements of self-esteem

Liking yourself

Having a body image you can appreciate (even if it is not “model-perfect”)

Being able to take some risk & not be overwhelmed w/ the thought of failure

Giving self credit when you deserve it

Having a realistic self-image based on fact not fantasy

Pathophysiology

Genes -> Cells -> Systems -> Behaviors

Genes

Code for mRNAs -> code for proteins w/i cells

Altered systems in the brain:

Altered brain activation as seen by MRI

Altered behavior:

Outward expression

Nature vs. Nurture

EDs run is families

Twin studies demonstrate significant genetic factors

 Nurture:

Sociocultural factors: pursuit of unrealistic thinness ideal, promotion of body dissatisfaction that precedes disorder

All people exposed but only some develop EDs

Gene-Environment interaction

Same people who give us our genes also create our environment

Ex: IQ = “double advantage”

Pass down genes & model disordered eating/attitudes = “double disadvantage”

Genes may drive us to seek out environments that emphasize appearance and thinness

Ballet or gymnastics: culture of thinness combined with genetic predisposition

Gene x Environment

Genes influence vulnerability

Four types of factors:

Genetic risk promoters

Genetic protective factors

Environmental risk promoters

Environmental protective factors

Anna

Anna’s aunt has AN

Father is tall & naturally thin

HS high jumper

Anna did not go on diets when all friends were, as she was naturally thin

HS Anna starts running track

coach encourages everyone to lose weight to improve performance. Put everyone on a diet.

Anna tried dieting, but got too hungry - stopped after 1 day

Family regularly eats breakfast and dinner together – an environment for open discussion of coach’s unrealistic expectations