Unit VI: Psychology & Health

Biopsychosocial model

Physical illness is caused by a combination of interacting factors that include:

- Biological processes
- Psychological processes
- Sociocultural processes

Health Psychology

–Impact of psychosocial factors on:

- Health
  - –Promotion
  - –Maintenance
- Illness
  - –Prevention
- –Causation
- –Treatment

Stress & Coping

- Stressor:
  - –Any event that places a demand on a person
- Stress:
  - –Any circumstances that threaten or are perceived to:
    - Threatens well-being
    - Taxes coping ability
  - –Occurs with an imbalance between demands and resources

- Stress Response:
  - –How an individual reacts to a demand

Stressors

- Catastrophes:
  - –Predictable increase in illness
- Major Events & Life Transitions:
  - –Moderately strong relationship to incidence of illness
- Daily Hassles:
  - –Stress is cumulative
  - –Best predictor of illness
- Four Principal Stressors:
  - –Frustration
    - Thwarting the pursuit of a goal
    - Often occurs through failures or loss
  - –Change
    - Circumstances that require readjustment
    - Social Readjustment Rating Scale
  - – Conflict:
    - •Two or more incompatible behaviors compete for expression
    - Conflict Types:
      - –Approach-Approach: two attractive goals
      - –Approach-Avoidance: goal has positive and negative attributes
      - –Avoidance-Avoidance: two unattractive goals
  - – Pressure:
    - •Expectations or demands to act a certain way.

–Strong impact on:

- Mental health
- Task performance

Appraising Stress

- Stress depends on:
  - –What events are noticed or focused on
  - –How events are viewed or interpreted

Stress Response

- Emotional Responses
  - – Stress & mood fluctuations correlate
  - – Common responses:
    - Annoyance, anger, disgust, rage
    - Worry, anxiety, fear, jealousy
    - Sadness, grief, guilt
- Behavioral Responses:
  - –Coping = active efforts to reduce or tolerate demands
  - –May be adaptive or maladaptive
    - Common Behaviors:
      - – Challenge:
        - Aggression
          - – Escape:
            - Self-indulgence (alcohol, internet)
            - Defense mechanisms

- Psychological Responses:
  - –Burnout
    - Physical, mental and emotional exhaustion from long-term involvement in emotionally demanding situations
    - Comes from heavy chronic work related stress
    - •Mental Illness
  - Stress plays a role in:
    - –Anxiety & mood disorders
    - –Schizophrenia & eating disorders
    - –PTSD
- Physiological Response:
  - – Fight or Flight response
- Walter Cannon
  - ANS mobilizes SNS
- Hans Selye:
  - –General Adaptation Syndrome
    - Stress elicits a predictable set of physiological changes

      Stage 1 Alarm

      Stage 2 Resistance

      Stage 3 Exhaustion

General Adaptation Syndrome

- Alarm Phase:
  - –SNS activation:
    - Release of Epinephrine and Norepinephrine
  - –Fight or Flight activation

- Resistance Phase:
  - –Release of stress hormones
  - –Coping efforts get underway
- Exhaustion Phase
  - –Physiological collapse
  - –Activation of the PNS
  - –Immune System depression
  - –Diseases of adaptation develop

Stress Response

- Brain & Endocrine Pathways:
  - – 1. Hyothalamus
    - Hypothalamus activates sympathetic NS
    - Central adrenal gland activated
    - Catecholamines produce fight or flight
  - – 2. Hypothalamus
    - Hypothalamus activates pituitary and release of ACTH
    - Corticosteroids release fats and proteins

Coping

- Constructive Coping

–Healthy and adaptive ways of dealing with stress

–Methods:

- Problem-focused
- Emotion-focused

Coping Methods

- Problem - Focused Coping

–Direct Action

- Problem-solving techniques

–Cognitive Reappraisal

- Develop realistic appraisals
- Adjust expectations or goals

–Proactive Coping

- Preventative measures

- Emotion - Focused Coping

–Denial

–Stress Management

- Reduces emotional reactions to stress
- Reduces physiological vulnerability

–Social Support

Stress & Health

- Psychosomatic Diseases

–Physical ailments partially caused by psychological factors

- Key is chronic autonomic arousal due to stress

–Hypertension, heart disease

–Cancer, diabetes

–MS, arthritis

–Migraines

–Asthma

–Ulcers

Heart Disease

- Framington Heart Study:

–Longitudinal study begun in 1948

–Identified Type A personality as a risk factor for coronary artery disease

- Type A Personality includes:
- Time urgent
- Competitive
- Hostile
    - The critical risk factor is cynical hostility:

Type A Personality

- Disease Explanations:
    - –Increased physiological reactivity
    - –Increased life stress from hostility
    - –Reduced social support
    - –Poor lifestyle habits

Hostility & Heart Disease

- Normative Aging Study:
    - –774 males studied over three years
    - –Hostility was a better predictor of heart disease than
        - Smoking
        - Alcohol use
        - High cholesterol

Stress & Illness

- Summarizing Stress Research:
    - –Stress clearly contributes to the causation of illness
    - –Research is all correlational

Stress Moderators

- Type B Personality:
  - –Relaxed
  - –Easygoing
  - –Not concerned about time
  - –Less frustrated
- Psychological Control
  - –Health is better at every age for those having a sense of control
    - Improves self-care
    - Improves recovery from illnesses
    - Improves quality of life in the seriously ill
- Social Support
  - –Provides multiple resources
  - –Clearly increases immune system functioning
  - –Improves mental health
  - –Research shows the relationship between support and health is as strong as smoking and cancer
- Optimism:
  - –Tendency to expect good outcomes
  - –Related to more use of:
    - Adaptive coping
    - *S*ocial support
      - –*Improves* immune functioning
- Autonomic Reactivity
  - –Level of cardiovascular response when under stress determines risk of later disease

–Higher autonomic arousal during stress makes people more vulnerable to stress-related heart disease

Stress & Illness

- Health depends on other psychosocial factors:
  - – Gender
  - – Race
  - – SES

  Socioeconomic Status:
    - –One of the best predictors of health, illness, and life expectancy
    - –Reasons include:
      - Physical environment
      - Reduced access to healthcare
      - Poorer lifestyle habits
      - Increased incidence of mental illness

Health Psychology

- AIDS
  - –Acquired Immune Deficiency Syndrome
  - –A viral disease that weakens the immune system
  - –Increases susceptibility to a variety of severe illnesses:
    - Pneumocystis Carinii Pneumonia
    - Kaposis' Sarcoma
  - –A preventable disease
- Results from risky behavior:
  - –Anyone can contract it

–Change behavior and you change the risk of contracting it

–You can not tell who is infected

- Universal Precautions

–Transmission is by bodily fluids:

- Blood, semen, vaginal secretions
- Sexual Contact

–75-80% of all cases

–High risk in gay males

–Heterosexual transmission:

»Women are 12 times more likely to contract it from a man

- Contaminated blood exposure

–Health care workers

–Patients receiving blood

- Babies born to HIV+ mothers
- Intravenous Drug Use

–HIV transmitted by blood on previously used needles

AIDS:

–Present status

- 40 million HIV+ people in the world
- 66% HIV+ people live in Africa
- 25% of adults in South Africa are HIV+

–Medical Aspects:

- AIDS is caused by HIV (human immunodeficiency virus)
- HIV invades T-helper lymphocyte cells (white blood cells)

–Reduces immune systems response to incoming diseases

- AIDS Time Frame:
  - –Average person goes 10 years before progressing into AIDS
  - –Once diagnosed with AIDS the life expectancy is about 2 years

- AIDS Treatment:
  - –No cure
  - –No vaccine
  - –Prevention is the best treatment
  - –Attitudes and behavior don’t correlate very highly

–High Risk Sexual Behavior

- 75% of university students say they have a lower than average risk of contracting HIV
- Only a small percentage of sexually active people use a condom
- Young gay males have returned to high rates of risky behaviors
- One in three HIV positive gay men are unaware of their HIV status

–IV Drug Abuse

- Clean needles for prevention
- Problems:
  - –Little concern about the future
  - –Sexually promiscuous

- Smoking
  - –The major preventable cause of death in North America
  - –23% of women; 28% of men smoke
  - –Education best predicts smoking

- Smoking Health Consequences:
  - –Lung Cancer
    - Smoking increases the risk by 3,000%
  - –Lung disease
    - Includes asthma, respiratory infection, emphysema
  - –Cancer
    - Mouth, larynx, digestive system, bladder, kidney, pancreas, colon, and cervix
  - –Heart Disease
    - 50% of all smoking related deaths are from heart disease
  - –Stroke
    - 25% more likely to have a stroke
  - Passive Smoke:
    - –Third leading cause of preventable death in the U.S.

- Stop Smoking Programs

– Statistics:

- 50% of all smokers quit eventually
- 3% succeed on the first attempt

–Successful programs combine:

- Physician recommendations
  - –Deal with withdrawal symptoms
- Cognitive-behavioral interventions
  - –Change behaviors
- Media anti-smoking campaigns

- Smoking Prevention:
- Most smokers develop the habit before age 18
- Most effective is to stop a person from starting to smoke
  - –Focus on the fact that most young people don’t smoke
  - –Use early interventions designed for elementary school
  - –Train in techniques to resist peer pressure
  - –Make cigarettes less accessible
  - –Train in future orientation