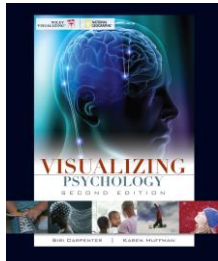




CHAPTER 3

Stress & Health Psychology





Lecture Overview

- [Understanding Stress](#)
- [Stress & Illness](#)
- [Health Psychology in Action](#)
- [Health & Stress Management](#)





Understanding Stress

- What is **stress**?
 - Nonspecific response of the body to any demand made on it;
 - physical & mental arousal to situations or events that we perceive as threatening or challenging





Understanding Stress

- Pleasant or beneficial (exercise) – eustress
- Unpleasant or objectional – distress
- “Stress” will refer to harmful or unpleasant





Stress



- Correlation between stress & illness
- Doesn't prove stress causes illness
- Noise causes hormonal & cardiac changes



Understanding Stress: Sources of Stress

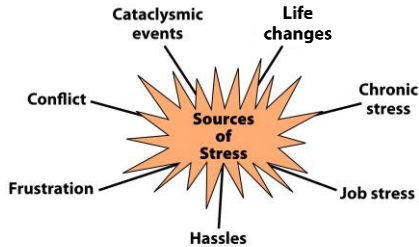


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Understanding Stress: Sources of Stress (Continued)

- Three Types of Conflict
 - **Approach-Approach:** forced choice between two or more desirable alternatives
 - **Avoidance-Avoidance:** forced choice between two or more undesirable alternatives
 - **Approach-Avoidance:** forced choice between two or more alternatives both having desirable & undesirable results

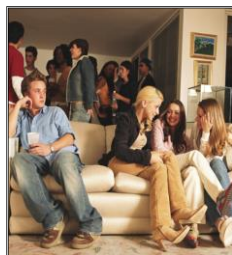


Study Organizer 3.1 Types of Conflict	
Type	Example
Approach–approach Conflict	You must choose between two jobs: one that will be inherently interesting and one that will look impressive on your résumé.
Avoidance–avoidance Conflict	You must choose between missing class and missing an important job interview.
Approach–avoidance Conflict	You want to spend more time in a close relationship, but that means you won't be able to see your old friends as much.



Pause & Reflect: Assessment

- Assuming this man is attracted to one of these women, is he experiencing an **approach-approach**, **approach-avoidance**, or **avoidance-avoidance** conflict?





Understanding Stress: Sources of Stress

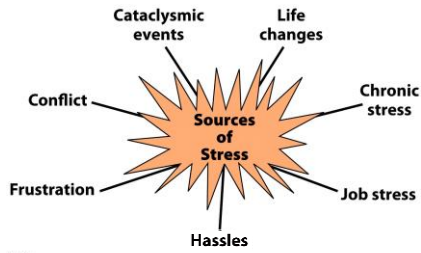


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Pause & Reflect: Psychology & Life

What Are Your Major Hassles?

Write down the top 10 hassles you commonly experience. Then compare your answers to the following list:



Understanding Stress: Sources of Stress

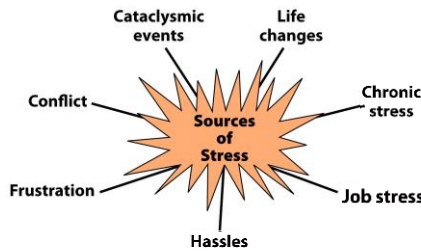


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Understanding Stress: Effects of Stress

- **SAM System** (Sympatho-Adreno-Medullary): initial, fast-acting stress response
- **HPA Axis** (Hypothalamic-Pituitary-Adrenocortical): Body's delayed stress response, which helps restore body's homeostasis. If extended may lead to impairment of the immune system & increased vulnerability to disease





Understanding Stress: How Stress Affects The Body

- When mentally or physically stressed
 - Body undergoes physiological changes
 - Cortisol plays critical role in the long term effects of stress
 - Prolonged elevation of cortisol is linked to increased levels of depression, PTSD, memory problems, unemployment, drug & alcohol abuse, and directly related to impairment of immune system



Understanding Stress: How Stress Affects The Body

- Impaired immune system = greater risk of:
 - Bursitis
 - Colitis
 - Alzheimer's
 - Rheumatoid arthritis
 - Periodontal disease
 - Common cold





The General Adaptation Syndrome (GAS)

1 Alarm phase
When surprised or threatened, your body enters an alarm phase during which your resistance to stress is temporarily suppressed, while your arousal is high (e.g., increased heart rate and blood pressure) and blood is diverted to your skeletal muscles to prepare for "fight-or-flight" (Chapter 2).

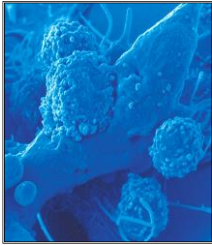
2 Resistance phase
If the stress continues, your body rebounds to a phase of increased resistance. Physiological arousal remains higher than normal, and there is an outpouring of stress hormones. During this resistance stage, people use a variety of coping methods. For example, if your job is threatened, you may work longer hours and give up your vacation days.

3 Exhaustion phase
Your body's resistance to stress can only last so long before exhaustion sets in. During this final phase, you become more susceptible to serious illnesses, and possibly irreversible damage to your body. Selye maintained that one outcome of this exhaustion phase for some people is the development of diseases of adaptation, including asthma, ulcers, and high blood pressure. Unless a way of relieving stress is found, the eventual result may be complete collapse and death.

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Understanding Stress: Effects of Stress (Continued)



- **Psychoneuro-immunology:** interdisciplinary field that studies the effects of psychological & other factors on the immune system





Stress & Illness



Cancer:

- Rapid cell division - tumor
- Immune system checks growth

- Stress – immune system
- Interrupted sleep – “killer cells”
- Normal sleep





Stress & Illness

• *Cardiovascular Disorders:*

Heart Disease: walls of coronary arteries thicken, reducing blood supply to heart.



Controllable factors:

- Stress
- Smoking
- Obesity
- High-fat diet
- Certain personality characteristics
- Lack of exercise





How Stress Affects The Body

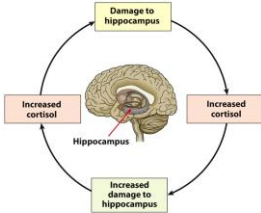
- When body is stressed
 - Autonomic nervous system releases epinephrine and cortisol into the blood stream
 - Heart rate increases
 - Release of fat & glucose from body's stores to give muscles a source of energy

Fight or Flight

- If no action taken, fat is not burned; may adhere to blood vessel walls



How Stress Affects The Mind



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SHORT TERM: Cortisol also can prevent the retrieval of existing memories, as well as the laying down of new memories

LONG TERM: Prolonged stress can permanently damage the hippocampus, a key part of the brain involved in memory. Once damaged, it cannot provide proper feedback to the hypothalamus, so cortisol continues to be secreted and a vicious cycle can develop



How Stress Affects The Mind

- Cortisol can prevent:
 - retrieval of existing memories;
 - laying down of new memories;
 - efficiency in general information processing.
- Explains why:
 - you forget information during an exam;
 - people become dangerously confused during an emergency.



- **Type A Personality:** behavior characteristics that include intense ambition, competition, exaggerated time urgency, & a cynical, hostile outlook
- **Type B Personality:** behavior characteristics consistent with a calm, patient, relaxed attitude





- **Hardiness:** resilient type of optimism that comes from three distinctive attitudes— *commitment, control, & challenge*

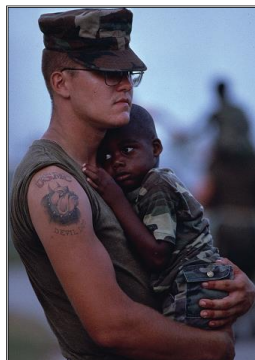


Hardiness

- **Commitment:** to work & personal life
- **Control:** see themselves in control of their lives rather than victims of circumstance
- **Challenge:** Look at change as a challenge – opportunity for growth & improvement – not a threat
- **Learned:** You can develop traits



- **Posttraumatic Stress Disorder (PTSD):** anxiety disorder following exposure to a life-threatening or other extreme event that evoked great horror or helplessness; characterized by flashbacks, nightmares, & impaired functioning.



- "shell-shock" •



Stress & Illness: PTSD (Continued)

Primary Symptoms of Posttraumatic Stress Disorder (PTSD)

- Reexperiencing the event through vivid memories or flashbacks
- Feeling "emotionally numb"
- Feeling overwhelmed by what would normally be considered everyday situations
- Showing diminished interest in performing normal tasks or pursuing usual interests
- Crying uncontrollably
- Isolating oneself from family and friends and avoiding social situations
- Relying increasingly on alcohol or drugs to get through the day
- Feeling extremely moody, irritable, angry, suspicious, or frightened





Stress & Illness: PTSD (Continued)

- Having difficulty falling or staying asleep, sleeping too much, and experiencing nightmares
- Feeling guilty about surviving the event or being unable to solve the problem, change the event, or prevent the disaster
- Feeling fear and sense of doom about the future

Five Important Tips for Coping with Crisis

1. Recognize your feelings about the situation and talk to others about your fears. Know that these feelings are a normal response to an abnormal situation.
2. Be willing to listen to family and friends who have been affected and encourage them to seek counseling if necessary.
3. Be patient with people. Tempers are short in times of crisis, and others may be feeling as much stress as you.
4. Recognize normal crisis reactions, such as sleep disturbances and nightmares, withdrawal, reverting to childhood behaviors, and trouble focusing on work or school.
5. Take time with your children, spouse, life partner, friends, and coworkers to do something you enjoy.

Source: American Counseling Association and adapted from Pomponio, 2002.



- Ulcers
- Caused by bacteria
- Stress leaves stomach more vulnerable to bacteria





**Pause & Reflect:
Assessment**

Alarm Reaction
Resistance
Exhaustion

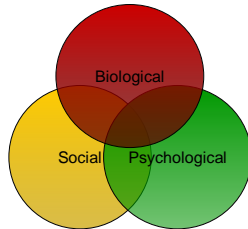
1. Briefly describe Selye's three stage **General Adaptation Syndrome (GAS)**.
2. **PTSD** is an anxiety disorder following extraordinary stress.





Health Psychology in Action

- **Health Psychology:** studies how biological, psychological, & social factors affect health & illness (the **biopsychosocial model**)





Health Psychology in Action

- Major Health Risks:
 1. Tobacco
 2. Alcohol & **Binge Drinking**
 3. **Chronic Pain** (lasting over 6 months)





Health Psychology in Action: Tobacco



- Why do people start smoking?
1. Peer pressure & imitation of role models (particularly important for young people)
 2. Nicotine is addictive
 3. Smokers learn to associate smoking with pleasant things (e.g., good food, friends, etc.), as well as with the “high” that nicotine gives them



Health Psychology in Action: Alcohol

- Why does the American Medical Association consider alcohol to be the most dangerous & physically damaging of all drugs?
1. After tobacco, it’s the leading cause of premature death in America & most European countries.
 2. It may cause serious brain damage.
 3. It appears to increase aggression.



- **Binge Drinking:** occurs when a man consumes five or more drinks, or a woman consumes four or more drinks in about two hours.



College-age Students and Drinking

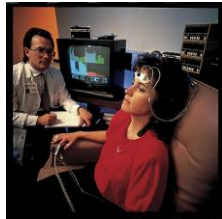
Per Year:

- 1,400 die from alcohol related causes
- 500,000 suffer injuries
- 1.2-1.5% attempt suicide
- 400,000 have unprotected sex
- 100,000 are too intoxicated to know whether they consented to sexual intercourse



Health Psychology in Action: Chronic Pain

- How do health psychologists treat chronic pain?
1. Behavior modification
 2. Biofeedback
 3. Relaxation techniques





Health & Stress Management

- Can't escape stress, so must cope with it
 - Level of stress depends on our interpretation and our reaction to stressors
1. **Emotion-Focused** (managing one's emotional reaction to a stressful situation)
 2. **Problem-Focused** (dealing directly with a stressor to decrease or eliminate it)





Coping With Stress

- **Emotion focused** forms of coping: emotional or cognitive strategies that help us manage stressful situations
- **Defense mechanisms** (will see some later): unconsciously distort reality to protect their egos and avoid anxiety



Coping With Stress

- **Problem Focused** forms of coping: deal directly with the stressor to decrease or eliminate it
 - Find a solution to the problem
- **External Locus of Control**: Belief that chance or outside forces beyond one's control determine one's fate
- **Internal Locus of Control**: Belief that one controls one's own fate



Pause & Reflect: Critical Thinking

- Is this an example of emotion- or problem-focused coping?



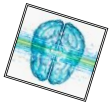


Health & Stress Management

• Resources for Healthy Living

- 1. Health & Exercise
- 2. Positive Beliefs
- 3. Social Skills
- 4. Social Support
- 5. Material Resources
- 6. Control (Internal Locus of Control)
- 7. Relaxation
- 8. Sense of Humor





Pause & Reflect: Critical Thinking

- Considering these eight resources for health & stress management, which resource do you most often use? Which one do you use least often? Why?





End of CHAPTER 3

Stress & Health Psychology

