Chapter 10

STRESS MANAGEMENT

Chapter 10 Objectives

- Understand the importance of the mind/body connection to the manifestation of disease
- Learn the consequences of sleep deprivation on mental and physical health
- Define the types of stress
- Explain the role of stress in maintaining health and optimal performance
- Identify major stressors in your life
- Define the two major types of behavior patterns
- Learn to lower vulnerability to stress
- Develop time-management skills
- Define the role of physical exercise in reducing stress
- Learn and explain various stress-management techniques

Are you Emotionally Healthy?

- To a profound extent, emotions affect our susceptibility to disease and our immunity.
  - Emotional health
    - Is a key part of total wellness.
    - Affects what we do
    - who we meet
    - who we marry
    - how we look
    - how we feel
    - the course of our lives
    - even how long we live.
Mind/Body Connection
- Certain parts of the brain are associated with specific emotions and specific hormone patterns.
  - The release of certain hormones is associated with various emotional responses, and those hormones affect health.

The brain
- The most important part of the nervous system.
  - It directs nerve impulses that are carried throughout the body.
  - It controls voluntary processes, senses and involuntary functions
  - The brain has a powerful influence over the body
  - Every time the brain manufactures an emotion, physical reactions accompany it.

Mind/Body Connection
- The immune system
  - Patrols and guards the body against attackers.
  - Closely linked to the brain, which allows the mind to influence both susceptibility and resistance to disease.
    - Cells in the Thymus, Spleen, Bone Marrow, and Lymph Nodes are laced with nerve endings
  - Its cells are equipped to respond to chemical signals from the central nervous system.
    - Various receptors on the cells surface respond to different chemical messengers

Sleep enhances Health and Wellness
- An anabolic process for restoration and healing of the brain, muscles, organs, and various body tissues.
- Sleep deprivation weakens the immune system, and chronically, leads to disease.
- Sleep deprivation also reduces the quality of life when “awake.”
- Sleep disorders include
  - problems with falling and staying asleep
  - difficulties staying awake
  - difficulty maintaining a sleep schedule
  - disruptive disorders while asleep.
Sleep enhances Health and Wellness

- Effects of lack of sleep
  - Weakened immune system
  - Impaired mental function
  - Physical, social, academic and job performance

- Some methods to enhance sleep quality:

<table>
<thead>
<tr>
<th>Do incorporate:</th>
<th>Avoid before bedtime</th>
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<tbody>
<tr>
<td>Exercise</td>
<td>Screen time</td>
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<tr>
<td>A bedtime ritual</td>
<td>Caffeine</td>
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<tr>
<td>Regular bedtime</td>
<td>Long naps</td>
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<tr>
<td>Using bed only for sleep</td>
<td>Large meals</td>
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Stress

- Costs the US over $100 billion annually in stress and stress-related diseases:
  - a direct result of health care costs
  - Lost productivity.
  - Absenteeism.

- Is defined as “the nonspecific response of the human organism to any demand that is placed upon it.” - Hans Selye
  - The body reacts in similar fashion regardless of the nature of the event that leads to the stress response.
  - Stress prepares the organism to react to a stressor

- Is not to be avoided, it is to be managed or coped with effectively.
  - Eustress leads to higher health and performance
  - Distress leads to a decrease in health and performance
  - Neustress is stress that is neither harmful or helpful

- Chronic distress raises the risk for many health disorders

Relationship between stress and performance
Stress Adaptation

- The human body strives to maintain a constant internal environment: **homeostasis**.
- Homeostasis is disrupted when a stressor triggers a reaction.

**General Adaptation Syndrome (GAS)**

- **Alarm reaction**
  - The immediate response to a stressor.
  - The body evokes an instant physiological reaction to minimize the threat to homeostasis.
- **Resistance**
  - As the stressor continues, the body uses reserves to maintain homeostasis.
- **Exhaustion/Recovery**
  - The body spends its limited reserves and loses its ability to cope.
  - The body functions at a diminished capacity while it recovers from stress.
  - If chronic stress persists during this stage, immune function is compromised, which can damage body systems and lead to disease.

Body responds to stress in one of three ways

Perceptions and Health

**Explanatory style** is the habitual manner in which people explain the things that happen to them.

- **Pessimistic explanatory style**
  - Interprets events negatively.
- **Optimistic explanatory style**
  - Interprets events in a positive light.
  - Tends to increase the strength of the immune system.

**Self-esteem** - A way of viewing and assessing yourself.

- **Positive self-esteem**
  - A sense of feeling good about one’s capabilities, goals, accomplishments, place in the world, and relationship to others.
  - Self-esteem is a powerful determinant of health behavior and of health status.

**A fighting spirit** involves the healthy expression of emotions, whether they are negative or positive.

- May be the underlying factor in what is called **spontaneous remission** from incurable illness.
Common stressors of college students

Behavior Patterns

- **Type A** behavior brings on more distress.
  - Hard-driving, multi-tasker, overambitious, aggressive, hostile at times, angry, time-urgent, and overly competitive.
  - Many of the Type A characteristics are learned behaviors.
  - Type A individuals who commonly express anger and hostility are at higher risk for Coronary Heart Disease (CHD).
    - Have up to a threefold increased risk for CHD and are seven times more likely to suffer a fatal heart attack by age 50.
  - **Type B** behavior brings on less distress.
    - Calm, casual, relaxed, and easy-going.
    - Not pressured or hurried, and seldom set deadlines.
  - **Type C** behavior is similar to Type A behavior except:
    - Commitment, confidence, and control.
    - Work is enjoyed.
    - Good physical condition is a value and challenge.
    - Risk for disease is lower (similar to Type B).
Commit to Change

TIPS TO MANAGE ANGER

• Correct the change and gain control over the behavior.
• Realize that chronic anger leads to illness and disease and may eventually kill you.
• Re-evaluate your choice of diet. Eating disorders and mood swings are often caused by poor eating habits.
• Ask yourself the following questions:
  • Is the anger justified?
  • Is it worth risking my health?
  • How will I feel about this situation in 10 years?
• Tell yourself, “Stay, my health is worth it.” Every time you start to feel anger

Time Management

Five Steps to Time Management (Lab 10D)

• Find the time killers by keeping a 4-7 day log.
  • Record all activities throughout the day.
  • Perceived time spent may be different from reality.
  • Helps put life and daily tasks in perspective.
• Set long-range and short-range goals.
  • Helps put life and daily tasks in perspective.
• Identify and prioritize immediate goals.
  • Determine the needs for the day and week.
  • Rank as top priority, medium-priority, low-priority, and trash.
• Use a daily planner to organize and simplify your day.
  • Contains the priority list, notes and references.
  • Be realistic with needed times for tasks, as well as balance the activities of the day.
• Conduct nightly audits.
  • Take 10 minutes to evaluate the day.
  • Gains momentum for the next day and helps reprioritize.

Skills to improve time-management

Practice these skills to enhance time management

1. Delegate
2. Say “no” to activities that keep you from priorities
3. Protect against boredom
4. Plan ahead for possible disruptions in schedule
5. Get it done
6. Eliminate distractions
7. Set aside ‘overtimes’
8. Plan time for you
9. Reward yourself
Coping with Stress

- How people perceive and cope with stress seems to be more important in the development of disease than the amount and type of stress itself.
- Several stress management techniques exist to cope with stress more effectively.
  - **Recognize that a problem exists.**
    - Many people do not want to believe they are under too much stress.
    - Some individuals fail to see the typical signs of distress.
  - **Identify the specific stressor and remove it.**
    - Keep a log to uncover the cause.
    - Work toward a solution after identifying it.
  - **If the stressor cannot be removed, manage it.**
    - Use relaxation techniques.

Physical activity is the simplest stress reduction tool

- Exercise decreases the physiological and psychological effects of stress
  - Decreases muscular tension
  - Metabolizes fight-or-flight hormones
  - Alleviates insomnia
  - Vigorous exercise for 30 minutes or longer releases endorphins and induces a soothing, calming effect
  - Strengthens the cardiovascular system making it more resistant to the negative effects of stress

Relaxation Techniques

- **Biofeedback**
  - Used to treat many conditions
  - The interaction with the interior self that allows a person to learn the relationship between the mind and the biological response.
  - Using electronic instruments, the person goes through a three-stage, closed-loop feedback system and learns to reliably influence the physiological response.

- **Progressive Muscle Relaxation**
  - Involves progressively contracting and relaxing muscle groups throughout the body
  - This can counteract the muscular tension that is common with the unresolved stress response.
  - An example of a complete progressive muscle relaxation sequence is provided on pages 383.
Breathing Exercises
- Concentration is on “breathing away” the tension and inhaling a large amount of air with each breath; done in a quiet, pleasant, well-ventilated room.
- Variations
  - Deep breathing
  - Sighing
  - Complete natural breathing

Visual Imagery
- Induces a state of relaxation that rid the body of the stress that leads to illness.
- Involves the creation of relaxing visual images and scenes in times of stress to elicit body and mind relaxation.
- Is done with closed eyes in a comfortable, quiet environment for 10 – 20 minutes.
- After control over the stressor is sensed, daily tasks can resume.

Relaxation Techniques

Autogenic Training
- A form of self-suggestion in which people place themselves in an autohypnotic state by repeating and concentrating on feelings of heaviness and warmth in the extremities.
- There are six fundamental stages:
  - Heaviness
  - Warmth
  - Heart
  - Respiration
  - Abdomen
  - Forehead

Meditation
- A mental exercise that can bring about psychological and physical benefits.
- To gain control over one’s attention by clearing the mind and blocking out the stressor(s) responsible for the higher tension.

Relaxation Techniques

Yoga
- A school of thought in the Hindu religion that seeks to help the individual attain a higher level of spirituality and peace of mind.
- Includes a combination of postures, diaphragmatic breathing, muscle relaxation, and meditation that help buffer the biological effects of stress.
  - Helps align the musculoskeletal system and increases muscular flexibility, muscular strength and endurance, and balance.
  - Helps relieve back pain and control involuntary body functions like heart rate, blood pressure, oxygen consumption, and metabolic rate.
  - Helps treat chemical dependency, insomnia, and prevent injury.
Yoga promotes control of the mind and body

- **Hatha yoga**
  Form of yoga that incorporates specific sequences of static-stretching postures to help induce the relaxation response
  
  **Examples:**
  - Integral yoga focuses on gentle, static stretches
  - Iyengar yoga for strength and endurance
  - Yogalates incorporates pilates exercises for strength
  - Power yoga links postures together in a dancelike routine to promote CR fitness

Meditation in Motion

- **Tai Chi** is performance of flowing, rhythmic movements that focus on breathing and slow execution
  - Exercises performed in sets that require concentration, coordination, controlled breathing, muscle relaxation, strength, flexibility, gait and balance
  - Professional guidance is needed to learn Tai Chi

Which Technique is the Best?

- Each person reacts differently to stress, so the best coping strategy will vary.
- A combination of two or more works best for most people.
- Stress is not what makes people ill; it is the reaction to the stressor.