CHAPTER 12

CHAPTER OUTLINE

Emotions, Stress, and Health

Module 12.1: The Nature of Emotions

1) Measuring Emotions: There are three ways to measure emotions. Each has strengths and weaknesses.
   a) Self-Reports: These are easy but of questionable accuracy.
   b) Behavioral Observations: This is an inferential method of measurement, which can be inaccurate. Facial expressions can be manipulated but micro-expressions, if noted, lead to more accurate conclusions about the emotion that is experienced.
   c) Physiological Measures: Using readings of autonomic nervous system responses. An emotion-arousing stimulus arouses the autonomic nervous system the division of the nervous system that controls (mainly involuntary) functioning of internal organ systems. Some people are better at suppressing these responses than are others.
      i) The ANS is divided into the sympathetic nervous system, which activates the body for fight or flight, and the parasympathetic nervous system, which decreases heart rate and supports non-emergency functions.
      ii) After a stimulus that excites the sympathetic nervous system ceases, the body responds with increased parasympathetic activity. This tendency relates to the opponent-process principle of emotions. According to this principle the removal of a stimulus that excites one emotion causes a swing to an opposite emotion. The initial emotion is referred to as the “A” state, and the rebound emotion as the “B” state. With repetition of the cycle, the A state becomes weaker, and the B state becomes stronger and more prolonged.

2) Emotion, Arousal, and Action:
   a) The James-Lange Theory of Emotions: According to the James-Lange theory, it is the person’s interpretation of a stimulus that directly evokes the autonomic changes. The emotion is the perception of the changes. Bodily responses are necessary, but not sufficient, to produce emotions. Emotional states do lead to different physiological states. It is unclear though whether the differences account for variations in emotion. One explanation is that our awareness of our own facial expressions influences how we experience our own emotions.
   b) Schacter and Singer’s Theory of Emotions: According to Schacter and Singer’s theory of emotions, the intensity of the physiological state (the degree of sympathetic nervous system arousal) determines the level of intensity of the emotional experience but not the type of emotion. Our own cognitive appraisal of a situation tells us which emotion we are experiencing. The questions raised by the two major theories of emotion are complex and difficult to study. Psychologists continue to explore the nature, causes and expression of specific emotions.

3) Do We Have a Few “Basic” Emotions? Psychologists have yet to agree on a list of universal basic emotions. Most include happiness, sadness, anger, fear, disgust,
surprise, contempt, and shame. Generally accepted criteria for a basic emotion include the appearance of the emotion soon after birth, cross-cultural similarity, a distinct biological basis, and (perhaps) a unique facial expression.

a) Producing Facial Expressions: The function of facial expressions is communication; they occur mostly in the presence of other people. Voluntary smiles differ from full spontaneous smiles, mostly in the movement of muscles around the eyes. The spontaneous and full expression of a smile, which includes changes in the muscles around the eyes, is called the Duchenne smile.

b) Understanding Facial Expressions: Facial expressions seem to develop spontaneously, without any need for imitation. Individuals who have been blind from birth can produce these expressions. Facial expressions seem to have the same meaning to people throughout the world. However, this doesn’t necessarily mean that the expressions represent basic emotions.

c) Do Facial Expressions Indicate Basic Emotions? If universal recognition of facial expressions is evidence of the existence of basic emotions, the list of basic emotions should be longer and include states that aren’t emotions (such as fatigue).

d) An Alternative to Basic Emotions: Emotions may not be basic units of experience but may be broken down into elements or experiences. Emotions overlap and often different emotions evoke the same physiological responses. The circumplex model tries to account for these facts.

4) Usefulness of Emotions: Emotions adjust our priorities and focus our attention on important information. The broaden-and-build hypothesis of positive emotions says the function of happy moods is to promote openness to new ideas and opportunities. Mildly sad moods increase the accuracy of our judgment and decision making.

a) Emotions and Moral Reasoning: Studies of reactions to and decisions about moral dilemmas suggest that emotions play a central role in moral reasoning and decision making.

b) Decisions by People with Impaired Emotions: It is assumed that emotions get in the way of intelligent decision making, but this is not the case. Only extremely intense emotions can jeopardize an individual’s rationality. In fact, emotions are needed for good decision making. Case studies of people with damage to areas around the frontal cortex reveal that these people show a lack of appropriate emotions and an associated deficit in decision making skill.

5) Emotional Intelligence: Emotional intelligence involves skill in perceiving, imagining, and comprehending emotions. A person who has a high degree of emotional intelligence can use information about feelings effectively in his or her decision making.

Module 12.2: A Survey of Emotions

1) Fear and Anxiety: Fear is a response to an immediate threat; anxiety is a more chronic sense of foreboding. Anxiety is measured by an increase in the startle response. The amygdala appears to be the key brain area responsible for generating these responses. People with damaged amygdalas report feeling fear and other emotions but do not respond as readily. They often have trouble interpreting the others’ emotions.

a) Anxiety, Arousal and Lie Detection: The polygraph records several indications of
sympathetic nervous system arousal, including blood pressure, heart rate, breathing rate, and electrical conduction of the skin. The polygraph identifies lying slightly better than most people can, but also yields a substantial number of “false positives,” identifying innocent people as liars.

b) Alternative Methods of Detecting Lies: The guilty knowledge test is a variation on the standard polygraph test, and achieves more accurate results. In the guilty knowledge test, the interviewer asks questions that would be perceived as threatening only to someone who knows unpublicized facts of a crime.

c) Microexpressions: Another approach involves more careful observation of people, especially observation of microexpressions. Based on research of Paul Ekman, these are very brief expressions, especially around the eyes, that give away concealed emotions.

2) Anger and Aggressive Behavior: Anger is provoked when one is prevented from doing something they want to do. The frustration-aggression hypothesis states that failure to obtain something one expected leads to aggressive behavior. Aggression is likely when the frustrating situation that arises involves a perception of intent on the part of the person/situation causing it. Aggression does not always involve anger or frustration.

a) A more general theory suggests that any unpleasant event excites the fight or flight impulses. Which of these dominates depends on the context. The likelihood of aggression and violence is especially high in sexual contexts. Across the animal kingdom males tend to fight more than females do, and they fight most often during breeding season. In animals that have complex social interactions, violent outbursts are often followed by reconciliation.

b) Individual Differences in Anger and Aggression: Contrary to previous belief, low self-esteem is not related to violent behavior. The most reliable predictor of future violent behavior is past behavior. Even people who have histories of committing acts of interpersonal violence may only exhibit their behaviors sporadically and in certain kinds of situations. Current research suggests that people who were physically abused as children are more likely than others to commit acts of violence. Other factors related to violent tendencies are impulsiveness, growing up in a violent neighborhood, lack of guilt, relatively weak physiological responses to arousal, a history of suicide attempts, and exposure to violence on TV. Aggressive tendencies are also influenced by biological factors, such as a high testosterone level. It seems that patients with most types of mental disorders are no more likely than others to be arrested for serious crimes. The highest probability of committing violent crime is associated with a diagnosis of antisocial personality disorder. Similar to the general population, mental patients who have the highest probability of criminal activity and violence are those with a previous history of such behaviors.

c) Sexual Aggression and Violence in Relationships: Rape is sexual contact obtained through the use of threats or other coercion. Offenses range from forcible rape through refusal to respect ambiguous resistance. Men and women differ in their interpretations of what qualifies as real resistance. A higher probability of committing rape has been related to childhood abuse, feelings of anger toward women, and intoxication. Men who commit rape are likely to have histories of
other types of violence towards fellow human beings. The sexual abuse of children has been an area of intense study and debate in scientific and professional psychology over the last few decades. It is difficult to define the range of activities that qualify as sexual abuse. The accuracy of our perception of how widespread and how harmful sexual abuse actually is hinges on these definitions. Proper mental health treatment planning depends on severity and frequency of the abuse endured by the child.

3) Happiness, Joy and Positive Psychology: Happiness is difficult to measure and study. It does not appear to generate as much distinct behavior as do the more negative emotions. Some psychologists have promoted the study of positive psychology. Positive psychology is concerned with life-enhancing emotions such as hope and courage and constructive behaviors and attitudes—for example, creativity and a sense of responsibility to others. What is considered life-enhancing varies from culture to culture. In America, most happiness research concerns the sense of subjective well-being—a sense that life is pleasant and satisfying. Current research suggests that wealth does not have a great deal of influence on a person’s level of happiness. Research suggests that on average, wealthier people, across cultures are happier than poor people. Temperament, marital status, genetics, social support, an active life and a long-term outlook also influence sense of subjective well-being.

4) Sadness: Answers to the question “What makes you sad?” tend to be more consistent and center on loss. Whether crying brings relief from tension is unclear - the research evidence is mixed. Crying elicits attention and sympathy. Crying is only seen in human beings. Research suggests that those who are in a sad mood have a more realistic outlook on life and exercise better judgment in decision-making processes.

5) Other Emotions: Anger, disgust and contempt are reactions to various offenses. Embarrassment, shame, guilt and pride are the “self-conscious” emotions because they related to how other people view us. We feel the self-conscious emotions directly or vicariously.

Module 12.3: Stress, Health, and Coping

1) Health psychology is concerned with the ways in which people’s behavior can influence and enhance health and how behavior contributes to prevention of or recovery from illness.

2) Stress:
   a) Selye’s Concept of Stress: Selye defines stress as the nonspecific response of the body to external demands. According to Selye, the body goes through three stages in its response to a stressor: Alarm is a brief period of high arousal of the sympathetic nervous system in preparation for vigorous activity. If stress continues, resistance—a stage of prolonged moderate arousal, will follow alarm. A feeling of withdrawal and a lessening of activity along with deterioration in performance follows. If the stress is intense and prolonged, the body enters the third stage, exhaustion. Cortisol and other hormones shift energy toward increasing blood sugar and metabolism and away from synthesis of proteins. This results in decreased immune system functioning and lassitude, loss of appetite and loss of interest in life.
   b) Measuring Stress: Prolonged and severe stress can be damaging to mental and
physical health. To measure stress, Holmes and Rahe devised the Social Readjustment Rating Scale, which has been widely used. The scale has been criticized on many grounds, including the validity of the concept of “stress points” and the different meanings that stressful events may have to individuals across a wide variety of situations.

c) Lazarus assumes that one’s interpretation of an event impacts the stress felt. He defines a stressful situation or event as one perceived as threatening to the individual. The demands it makes will possibly exceed the individual’s resources for managing it. People can learn to cope with stressful events.

3) How Stress Affects Health:
   a) Indirect Effects: stress can affect health indirectly by changing behaviors such as sleep, alcohol, intake, and risk-taking behaviors.
   b) Direct Effects:
      i) Immediate stress causes “fight-or-flight” response.
      ii) Prolonged stress, such as worries about a dangerous living environment or miserable job or marriage, causes different reactions in the body. A continuous problem causes the adrenal glands to release more cortisol, which enhances metabolism and increases the availability of sugar and fuels to the cells, and also activates parts of the immune system, which produces a fever and conserves energy by decreasing the person’s energy, activity, and appetite. Therefore, stress causes fever, fatigue, and sleepiness.
      iii) Even longer stress can cause more serious problems, including cortisol damage to the hippocampus, depressed immune system, and breakdown of muscles for protein.
   c) Heart Disease: People with a Type A personality are highly competitive, driven and impatient. Type A people are often angry and hostile. People with a Type B personality are more relaxed and easygoing. A relatively weak link does exist between a Type A personality and susceptibility to heart disease, especially related to hostility. Evidence for these relationships is also drawn from cross-cultural studies examining pace of life, diet and climate. Social support may help protect against heart disease.
   d) Cancer: People’s behaviors related to education and preventative self-care are powerful factors in influencing the detection and course of cancer. The brain influences the immune system, which fights cancer. Depression and stress are associated with cancer, because of effects on the immune system. They probably have a minor influence on the risk of cancer, far less than genes and toxic substances. On balance, psychological factors may have a greater impact on what happens after the onset and diagnosis of cancer than before the disease begins.
   e) Posttraumatic Stress Disorder: Some individuals react to severe stress by developing posttraumatic stress disorder (PTSD), a diagnosis given to people who have endured extreme stress and, subsequent to the traumatic event, are experiencing prolonged anxiety and depression. People with PTSD may suffer from frequent nightmares, outbursts of anger, persistent unhappiness, and guilt. Not all survivors of catastrophic stress develop PTSD, so the causes of the disorder are still not well understood. Perhaps some people are more vulnerable than others; most PTSD victims have a smaller than average hippocampus.
4) Coping with Stress: People differ in how they cope with stress. There are two major categories of strategy. The first is *problem-solving strategies* which involve paying careful attention to the stressful event and one’s reaction to it and trying to take effective action. The second is *emotion-focused strategies* based on avoiding the stressful event or trying to avoid thinking about it.

a) Events are perceived as more or less stressful to the degree that they are predictable, and to the degree that we have (or perceive that we have) control.

b) Providing people with a small-scale preview of a stressful experience they are facing can be a useful strategy. One way is to *inoculate* people against stress. Inoculation is an exposure to small amounts of the stressor. It allows individuals to practice ways of dealing with such events beforehand.

c) Coping by Reappraisal: Thinking is important to successful coping. These beliefs emphasize personal strengths, downplay weaknesses, and distort bad news to make it less bad, or even good. Though it may seem like a type of “denial,” people may cope better when they tell themselves that they are in control and that life is getting better.

d) Emotion-Focused Coping: These attempt to help us manage our reactions to stress and are appropriate when the source of the stress is a situation that we cannot control.

e) Relaxation techniques offer simple and effective ways to deal with stress. These techniques have a lot in common with meditation practices.

f) Regular exercise helps reduce to stress, and helps to prepare people for unexpected contingencies. People who are in good physical condition will react less strongly to stress.

g) Distraction can be a powerful blunting strategy. Its effectiveness depends on whether a person believes that it will help. This process is somewhat similar to hypnosis.