23.1. Introduction to Health Psychology

A. Health psychology is the study of the interaction between the mind and the physical health of the body.

B. Health psychologists are interested in the psychological antecedents and consequences of how people remain healthy, how they become ill or prevent illness, and how they respond to illness.

C. Health psychologists distinguish between illnesses that are acute—intense, but of short duration; and chronic—recurring or constantly present.

23.2. History of Health Psychology

A. One of the earliest antecedents of health psychology is the field of psychosomatic medicine, which studies how psychological problems can lead to particular kinds of physical diseases, such as ulcers, asthma, and migraine headaches.

B. A second antecedent is the field of behavioral medicine, which focuses on the use of behavioral techniques to help people modify health-related problems, such as heavy smoking or overeating.

C. Historically, physicians and others have used the biomedical model for understanding illness. According to this view, disease is caused by pathogens that have invaded the body; we will be able to eliminate disease if we eliminate the causative pathogens.

D. Health psychology is based on an alternative biopsychosocial model, according to which psychological and social factors, as well as biological factors, can influence health.

23.3. Promotion of Health: Enhancing Health through Lifestyle

A primary goal of health psychology is to promote health and health-enhancing behavior.
A. Longevity

Seven health-related practices that have been found to be related to longevity are

1. Sleeping 7 to 8 hours per day
2. Eating breakfast almost every day
3. Rarely eating between meals
4. Being at a roughly appropriate weight in relation to height
5. Not smoking
6. Drinking alcohol in moderation or not at all
7. Exercising or engaging in physical activity regularly

B. Nutrition

1. We eat to supply raw materials for the body’s internal processes and for its interactions with the environment.

2. Metabolism comprises the processes by which the body captures energy and material resources from food and then eliminates the waste products the body does not use. The two key processes of metabolism are catabolism, which involves the breakdown of nutrients, and anabolism, which involves the construction of new materials from these nutrients.

3. There are five basic types of nutrients: carbohydrates, lipids, proteins, vitamins, and minerals. A nonnutritive food element, fiber, is also important for digestion and for promoting health.

C. Exercise

1. Exercise also plays a major part in maintaining good health.

2. The most important kind of exercise is aerobic exercise, which involves long-duration activities that increase both heart rate and oxygen consumption, thereby enhancing cardiovascular (heart and blood vessels) and respiratory (breathing) fitness. Other kinds of exercise include (a) anaerobic exercise, which does not require increased consumption of oxygen and is involved, say, in sprinting; (b) isometric exercise, which requires the contraction of muscles and the movements of joints and is involved in weight lifting and some forms of calisthenics; (c) isometric exercise, which occurs when muscles are contracted against unmoving objects, as in pushing against a hard wall; and (d) isokinetic exercise, which requires the movement of muscles and joints, but with the amount of resistance adjusted as a function of the force supplied, as in the use of hydraulically based exercise machines.

23.4. Stress, Personality, and Illness

Stress is the situation in which some factor (or factors) in the environment causes a person to feel threatened or challenged in some way. Stressors (situations or events that create the stress) are changes in the environment that cause the person to have to adapt to or cope with the situation, and these adaptations are called stress responses.

1. Thomas Holmes and Richard Rahe have proposed a scale of life events in terms of the stress to which they tend to lead. A listing, based on their work, is shown in Table 23.1.

2. Of course, the Holmes and Rahe scale does not include all possible stressors. For example, adapting to a new culture can be stressful. This kind of stress is called acculturative stress.

A. Stress responses

1. Environmental events in and of themselves do not create stress; rather, it is our response to such events that creates stress for us.

2. When one is feeling great stress, the body may eventually start to resist, so that instead of feeling the anxiety associated with stress, one simply starts to feel exhausted.

3. When one reaches the point of exhaustion, one becomes especially susceptible to opportunistic infections, which are infections that take advantage of a weakened immune system or other vulnerability.
B. Personality and perceived stress

1. People respond differently to stress, depending on their personality.

2. Susan Folkman and Richard Lazarus have proposed a model of how personality factors, stressful circumstances, and health interact. According to this model, we start with primary appraisal, which involves analyzing just how much of a stake we have in the outcome of handling a particular situation. If we have no stake in the outcome, the entire process stops right there.

3. If we do have a stake, we may move on to secondary appraisal, in which we assess what we can do to maximize the likelihood of potentially beneficial outcomes and to minimize the likelihood of potentially negative outcomes.

4. Once we have finished appraising the situation, we may move on to coping with the situation. There are two main kinds of coping. Problem-focused coping involves tackling the problem itself and involves

### TABLE 23.1. Social Readjustment Rating Scale

<table>
<thead>
<tr>
<th>Rank</th>
<th>Life event</th>
<th>Mean value</th>
<th>Rank</th>
<th>Life event</th>
<th>Mean value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Death of spouse</td>
<td>100</td>
<td>22</td>
<td>Change in responsibilities at work</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Divorce</td>
<td>73</td>
<td>23</td>
<td>Son or daughter leaving home</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>Marital separation</td>
<td>65</td>
<td>24</td>
<td>Trouble with in-laws</td>
<td>29</td>
</tr>
<tr>
<td>4</td>
<td>Jail term</td>
<td>63</td>
<td>25</td>
<td>Outstanding personal achievement</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Death of close family member</td>
<td>63</td>
<td>26</td>
<td>Spouse begins or stops work</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>Personal injury or illness</td>
<td>50</td>
<td>27</td>
<td>Begin or end school</td>
<td>26</td>
</tr>
<tr>
<td>7</td>
<td>Marriage</td>
<td>47</td>
<td>28</td>
<td>Change in living condition</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>Fired at work</td>
<td>47</td>
<td>29</td>
<td>Revision of personal habits</td>
<td>24</td>
</tr>
<tr>
<td>9</td>
<td>Marital reconciliation</td>
<td>45</td>
<td>30</td>
<td>Trouble with boss</td>
<td>23</td>
</tr>
<tr>
<td>10</td>
<td>Retirement</td>
<td>45</td>
<td>31</td>
<td>Change in work hours or conditions</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>Change in health of family member</td>
<td>44</td>
<td>32</td>
<td>Change in residence</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>Pregnancy</td>
<td>40</td>
<td>33</td>
<td>Change in schools</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>Sex difficulties</td>
<td>39</td>
<td>34</td>
<td>Change in recreation</td>
<td>19</td>
</tr>
<tr>
<td>14</td>
<td>Gain of new family member</td>
<td>39</td>
<td>35</td>
<td>Change in church activities</td>
<td>19</td>
</tr>
<tr>
<td>15</td>
<td>Business readjustment</td>
<td>39</td>
<td>36</td>
<td>Change in social activities</td>
<td>18</td>
</tr>
<tr>
<td>16</td>
<td>Change in financial state</td>
<td>38</td>
<td>37</td>
<td>Mortgage or loan less than $10,000</td>
<td>17</td>
</tr>
<tr>
<td>17</td>
<td>Death of close friend</td>
<td>37</td>
<td>38</td>
<td>Change in sleeping habits</td>
<td>16</td>
</tr>
<tr>
<td>18</td>
<td>Change to different line of work</td>
<td>36</td>
<td>39</td>
<td>Change in number of family get-togethers</td>
<td>15</td>
</tr>
<tr>
<td>19</td>
<td>Change in number of arguments with spouse</td>
<td>35</td>
<td>40</td>
<td>Change in eating habits</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>Mortgage over $10,000</td>
<td>31</td>
<td>41</td>
<td>Vacation</td>
<td>13</td>
</tr>
<tr>
<td>21</td>
<td>Foreclosure of mortgage or loan</td>
<td>30</td>
<td>42</td>
<td>Christmas</td>
<td>12</td>
</tr>
</tbody>
</table>

Thomas Holmes and Richard Rahe analyzed the life events that lead to stress and assigned various weights to each of these potential stressors. Note that amounts of money are in terms of 1967 dollars. (After Holmes, T., & Rahe, R. (1967). The social readjustment scale. Journal of Psychosomatic Research, 11, 213–218.)
creating strategies to resolve the problem. **Emotion-focused coping** involves handling our emotions and concentrating on them instead of on the problem.

### C. Type-A versus Type-B behavior patterns

1. Psychologists have come to distinguish between two primary behavior patterns by which people cope with stress.

2. The **Type-A behavior pattern** has three basic characteristics: (a) a competitive orientation toward achievement; (b) a sense of urgency about time; and (c) elevated feelings of anger and hostility.

3. The **Type-B behavior pattern** is characterized by relatively low levels of competitiveness, urgency about time, and hostility. Thus, Type-B's tend to be more easygoing, relaxed, and willing to enjoy the process of life as they live it.

4. In general, Type-A individuals tend to react more quickly and forcefully in stressful situations and tend to view sources of stress as threats to their personal self-control. Type-A's appear to be more susceptible than Type-B's to heart attack.

5. Type-A behavior appears to be at least partially modifiable through a variety of techniques, including relaxation, aerobic exercise, weight training, and cognitive-behavioral stress-management techniques.

### 23.5. Using Health Services

A. The first step in obtaining medical treatment for illness is to recognize and interpret **symptoms**, which are any unusual feelings in the body or observable feelings in the body thought to indicate some kind of pathology. Symptoms are what patients observe, whereas the features of the patient observed from the doctor's point of view are sometimes referred to as **signs**.

B. Both physicians and patients have been observed to have styles that characterize them.

1). Three distinguishing features of patients are the extent to which they have (a) preference for information about health care, (b) preference for self-care, and (c) preference for involvement in health care.

2). With regard to physicians, a distinction is sometimes made between a **doctor-centered style**, in which the physician asks questions that encourage patients to respond very briefly and to focus on the illness rather than on themselves; and a **patient-centered style**, in which the physician is less controlling, encourages more verbal response on the part of the patient, and focuses as much on the patient as on the particular illness for which the patient is being treated.

C. Patients' sense of control can be enhanced through **control-enhancing interventions**, which include preparing patients better for what to expect and informing them more of the nature of the possible outcomes. However, giving patients too much information can confuse them and actually increase stress.

### 23.6. Pain and Its Management

A. **Pain** is the sensory and emotional discomfort associated with actual, imagined, or threatened damage to or irritation of the body.

B. A distinction is sometimes made between two basic kinds of pain.

1). **Organic pain** is caused by damage to bodily tissue.

2). **Psychogenic pain** is the discomfort one feels when there appears to be no physical cause. There are three main kinds of psychogenic pain. **Neuralgia** is a syndrome in which a person experiences recurrent episodes of intense shooting pain along a nerve; it is not known what causes the pain. **Causalgia** is characterized by recurrent episodes of severe burning pain. People experiencing this kind of pain may feel as though a part of their body is suddenly on fire. **Phantom-limb pain** is felt in a limb that either has been amputated or no longer has functioning nerves.

C. One further distinction can be made between two types of pain. **Acute pain** is the discomfort that a person experiences over a relatively short period of time, whereas **chronic pain** occurs over a long time period, usually at least 6 months.
D. People are differentially sensitive to pain.
E. A number of different methods have been used to control pain. They include control through drugs, surgical control, acupuncture, biofeedback, hypnosis, relaxation techniques, guided imagery, and distraction.

23.7. Living with Serious, Chronic Health Problems

A number of chronic health problems can strain the coping mechanisms both of those suffering from the problems and of those who live with these individuals.

1. One such illness is **acquired immune deficiency syndrome (AIDS)**. AIDS is generally caused by blood-to-blood contact or through passing of semen. This disease is caused by a slow-acting virus that attacks the immune system, and results in afflicted individuals eventually dying of opportunistic infections that their immune systems are unable to fight off. The virus that is believed to cause AIDS is **human immunodeficiency virus (HIV)**.

2. Testing positive for HIV does not indicate that a person actually has AIDS, but does indicate a very high probability of the person’s eventually falling ill with AIDS.

A. Psychological models for coping with chronic illness

1. Franklin Shontz has proposed a model of how people may cope with serious, chronic, and probably life-threatening illnesses. There are four stages in the model. In the first stage, *shock*, the people are stunned, bewildered, and often feel detached from the situation. The second stage is *encounter*, in which people give way to feelings of despair, loss, grief, and hopelessness. They do not think well, and have difficulty in planning and solving problems. In the third stage, *retreat*, people often try to deny the illness altogether, as well as its implications for what it means for them. In the fourth and final stage, *adjustment*, people make whatever adjustments are necessary to live with the reality of the disease.

2. Shelley Taylor has proposed an alternative model that highlights the ways in which people try to deal with chronic illnesses. According to Taylor, people first try to *find meaning* in the experience of the illness. Next, they try to *gain a sense of control*. They may seek as much information as they can, and seek treatments to the extent possible. Third, patients try to *restore their self-esteem*.

3. Rudolph Moos has proposed a *crisis theory*, according to which how well a person copes with serious illness depends on three key factors: (a) background factors, such as emotional maturity and self-esteem; (b) illness-related factors, such as how disabling, painful, or life-threatening the disease is; and (c) environmental factors, such as social supports.

4. According to Moos, the coping process has three main components. In *cognitive appraisal*, the individual assesses the meaning and significance of the health-related problem for his or her life. The person then *decides* how to perform tasks in a way that is adaptive, given the illness. Finally, the individual adapts.

### Summary

1. **Health psychology** is the study of the interaction between mental processes and physiological health.
2. Illnesses can be of either short duration—*acute*—or of long duration—*chronic*.
3. Health psychology is an outgrowth of two fields with earlier origins, **psychosomatic medicine** and **behavioral medicine**.
4. The **biomedical model** views illness as caused by pathogens attacking the body. The alternative **biopsychosocial model** proposes that psychological and social as well as biological factors can affect illness.
5. Nutrition, aerobic exercise, and other aspects of a person’s lifestyle all influence the health of that person.
6. **Stress** is experienced when environmental factors cause a person to feel threatened or challenged in some way. **Stressors** are environmental changes that cause the person to have to adapt to or cope with what that person perceives as a stressful situation. The stress inheres not in the situation itself, but in the individual's reaction to that situation.

7. At first, stress can help an individual mobilize his or her resources. But continued stress can cause exhaustion to set in.

8. Stress has been linked to a number of illnesses. People under stress have reduced immune functioning, rendering them more susceptible to these illnesses.

9. In **primary appraisal**, we analyze our stake in the outcome of handling a particular situation. In **secondary appraisal**, we assess what we can do to maximize the likelihood of benefit and minimize the likelihood of harm.

10. **Problem-focused coping** deals directly with a problem. **Emotion-focused coping** deals with the emotions generated by the problem, but not directly with the problem itself.

11. Personality factors can influence how well a person copes with stress. The **Type-A personality** tends to be competitive, to feel a sense of urgency, and to have feelings of hostility and anger. The **Type-B personality** is not marked by these characteristics, and tends to handle stress better.

12. People generally seek health services only after noticing **symptoms** of illness. The evidence of illness noted by doctors is referred to as **signs**.

13. Patient and doctor styles both differ. Doctors who encourage patients to answer very briefly and who focus exclusively on the illness are sometimes referred to as having a **doctor-centered style**, whereas doctors who encourage freer responding on the part of patients and who focus on the whole patient are referred to as having a **patient-centered style**.

14. **Organic pain** is caused by damage to bodily tissue. **Psychogenic pain** is the discomfort felt when there appears to be no physical cause of the pain. This type of pain may involve (a) **neuralgia**—recurrent pain along a nerve; (b) **causalgia**—involving burning pain; or (c) **phantom-limb pain**—pain occurring in the absence of a neurological connection to the felt source of pain.

15. There are a variety of methods for controlling pain, including drugs, surgical control, biofeedback, relaxation techniques, distraction, guided imagery, and acupuncture.

16. **AIDS** is a terminal illness caused by a retrovirus (HIV). It is usually contracted either through blood-to-blood contact or through semen.

17. When people recognize that they have a serious and chronic health problem, they generally pass through a series of stages: shock, encounter, retreat, and adjustment. An alternative model describes cognitive adaptations in terms of the needs to find meaning, gain control, and to restore self-esteem.

18. Factors of the individual, the illness, and the environment all affect how well we adapt to chronic illness.

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**Key Terms**

- acquired immune deficiency syndrome (AIDS)
- acute
- acute pain
- aerobic exercise
- anabolism
- behavioral medicine
- biomedical model
- biopsychosocial model
- catabolism
- causalgia
- chronic
- chronic pain
- control-enhancing intervention
- coping
- doctor-centered style
- emotion-focused coping
- health psychology
- metabolism
- neuralgia
- organic pain
- pain
- patient-centered style
- phantom-limb pain
- primary appraisal
- problem-focused coping
- psychogenic pain
- psychosomatic medicine
- secondary appraisal
- sign
- stress
- stressor
- stress response
- symptom
- Type-A behavior pattern
- Type-B behavior pattern
Solved Problems

A. Select the best response option from among the four that are given.

1. The biopsychosocial model, as opposed to the biomedical model, incorporates which factor(s) as important to health outcomes?
   A. biological factors only
   B. psychological as well as biological factors
   C. pathogenic factors
   D. constitutional factors

2. Aerobic exercise is considered the most important type of exercise because of its promotion of
   A. cardiovascular and respiratory fitness.
   B. the ability to work all parts of the body simultaneously.
   C. both strength and flexibility.
   D. muscle tissue.

3. According to Susan Folkman and Richard Lazarus, an individual will most likely not begin to experience stress if that individual
   A. uses emotion-focused coping procedures.
   B. has no stake in the outcome of a particular situation.
   C. has a type-B behavioral pattern.
   D. partakes in aerobic exercises, has a healthy diet, and gets 7–8 hours of sleep a night.

4. Control-enhancing interventions are designed to
   A. place health care decisions squarely on patients.
   B. provide patients with all the available information on their particular health concern.
   C. monitor and remediate environmental factors contributing to unhealthy behavioral patterns.
   D. inform and prepare patients for potential health outcomes.

5. Recent cognitive models of coping with illness have stressed the importance of
   A. denial as a tool for avoiding pain.
   B. the differential effects illness has on individuals.
   C. the meaning that an individual attributes to his or her illness.
   D. how disabling or life-threatening the illness is.

B. Answer each of the following questions with the appropriate word or phrase.

6. If an individual experiences recurring burning pain that cannot be localized to a particular source, the pain may be classified as _______.

7. An individual may feel _______ when he or she feels pain in a body part which is no longer there, or has no functioning nerves.

8. _______ pain is felt during brief time periods, whereas _______ pain is long-standing.

9. The human immunodeficiency virus is believed to cause _______.

10. The _______ is associated with low competitiveness, less urgency about time, and general easy-goingness.

11. A doctor uses observations of the patient, or _______, to interpret illness, whereas a patient recognizes his or her own body’s _______ in recognizing illness.

12. _______ medicine is concerned with the modification of health-related behaviors.
13. In Folkman and Lazarus’s stress appraisal model, _______ involves trying to maximize the possibility of a beneficial outcome, while minimizing the possibility of a negative one.

14. People who have experienced a high degree of stress for a prolonged period may be at risk for _______, which are common when there is a weakened immune system.

15. A doctor who has a _______ style encourages verbal responses from patients about their experiences in response to illness.

C. Answer T (true) or F (false) to each of the following statements.

16. AIDS is an example of an acute illness.

17. A primary concern of health psychology is how psychological factors contribute to physical health.

18. Anabolism occurs when the body breaks down all its nutrients for use.

19. Stressors are adaptations an individual uses to cope with stress.

20. Not all patients have the same preference for how much involvement they would like to have in their health care.

21. The sources of both stress and pain may be imagined.

22. Psychogenic pain can always be traced back to a physical cause.

**Answer Key**