

# Therapy

## Chapter Overview

Chapter 16 discusses the major psychotherapies and biomedical therapies for maladaptive behaviors. The various psychotherapies all derive from the perspectives on personality discussed earlier, namely, the psychoanalytic, humanistic, behavioral, and cognitive perspectives. The chapter groups the therapies by perspective but also emphasizes the common threads that run through them. In evaluating the therapies, the chapter points out that, although people who are untreated often improve, those receiving psychotherapy tend to improve somewhat more, regardless of the type of therapy they receive.

The biomedical therapies discussed are drug therapies; electroconvulsive therapy; and psychosurgery, which is seldom used. By far the most important of the biomedical therapies, drug therapies are being used in the treatment of psychotic, anxiety, and mood disorders.

Because the origins of problems often lie beyond the individual, the chapter concludes with approaches that aim at preventing psychological disorders by focusing on the family or on the larger social environment as possible contributors to psychological disorders.

NOTE: Answer guidelines for all Chapter 16 questions begin on page 403.

## Guided Study

The text chapter should be studied one section at a time. Before you read, preview each section by skimming it, noting headings and boldface items. Then read the appropriate section objectives from the following outline. Keep these objectives in mind and, as you read the chapter section, search for the informa-

tion that will enable you to meet each objective. Once you have finished a section, write out answers for its objectives.

### *The Psychological Therapies* (pp. 540–555)

David Myers at times uses idioms that are unfamiliar to some readers. If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 411–412 for an explanation: *cracked the genetic code; gawk; common threads; fueled . . . residue; your developing self-portrait; aim to boost; knocks the props from under you; Eavesdropping; drinks laced with a drug; aggressive and self-abusive behaviors; colors our feelings; worth his or her salt . . . non-sense-annihilating; crap!; catastrophizing; talk straight.*

1. Briefly explain the current approach to therapy.

2. Discuss the aims and methods of psychoanalysis and explain the critics' concerns with this form of therapy.

7. Identify the basic assumptions of the cognitive therapies and describe group therapy.

3. Identify the basic themes of humanistic therapies and describe Rogers's person-centered approach.

*Evaluating Psychotherapies* (pp. 556–564)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 412–413 for an explanation: *Hang in there; testimonials; ebb and flow of events; the opening volley; clear-cut; harness; . . . empathy are hallmarks; shop around.*

4. Describe Perls' Gestalt therapy.

8. Discuss the findings regarding the effectiveness of the psychotherapies.

5. Identify the basic assumptions of behavior therapy and discuss the classical conditioning therapies.

9. Discuss the commonalities among the psychotherapies.

6. Describe the premise behind operant conditioning techniques and explain the critics' concerns with these techniques.

10. Discuss the role of culture and values in psychotherapy.



List several ways that humanistic therapy differs from psychoanalysis.

10. The humanistic therapy based on Rogers's theory is called \_\_\_\_\_, which is described as \_\_\_\_\_ therapy because the therapist \_\_\_\_\_ (interprets/ does not interpret) the person's problems.
11. In order to promote growth in clients, Rogerian therapists exhibit \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
12. Rogers's technique of restating and clarifying what a person is saying is called \_\_\_\_\_. The computer program that is based on this listening technique is \_\_\_\_\_.
13. Another type of humanistic psychotherapy aims at helping people become more aware of and better able to express their feelings. It is known as \_\_\_\_\_ therapy and was developed by \_\_\_\_\_.
14. This type of therapy focuses on bringing unconscious feelings to awareness, as \_\_\_\_\_ theory emphasized, and on clients taking responsibility for themselves in the present, as emphasized by the \_\_\_\_\_ perspective.

Contrast the assumptions of the behavior therapies with those of psychoanalysis and humanistic therapy.

15. One cluster of behavior therapies is based on the principles of \_\_\_\_\_, as developed in Pavlov's experiments. This technique, in which a new, incompatible response is substituted for a maladaptive one, is called \_\_\_\_\_. Two examples of this technique are \_\_\_\_\_ and \_\_\_\_\_.
16. The technique of systematic desensitization has been most fully developed by the therapist \_\_\_\_\_. The assumption behind this technique is that one cannot simultaneously be \_\_\_\_\_ and relaxed.
17. The first step in systematic desensitization is the construction of a \_\_\_\_\_ of anxiety-arousing stimuli. The second step involves training in \_\_\_\_\_. In the final step, the person is trained to associate the \_\_\_\_\_ state with the \_\_\_\_\_-arousing stimuli.
18. In helping people to overcome fears of snakes and spiders, for example, therapists sometimes combine systematic desensitization with \_\_\_\_\_.
19. In aversive conditioning, the therapist attempts to substitute a \_\_\_\_\_ (positive/negative) response for one that is currently \_\_\_\_\_ (positive/negative). In this technique, a person's unwanted behaviors become associated with \_\_\_\_\_ feelings.
20. Therapies that influence behavior by controlling its consequences are based on principles of \_\_\_\_\_ conditioning. One application of this form of therapy to institutional settings is the \_\_\_\_\_, in which desired behaviors are rewarded.

State two criticisms of "behavior modification."

21. Therapists who teach people new, more constructive ways of thinking are using \_\_\_\_\_ therapy.
22. The form of cognitive therapy that attempts to eliminate irrational thinking is \_\_\_\_\_ therapy. Its creator is \_\_\_\_\_. A technique that attempts to reverse the negative attitudes associated with depression by helping people see their irrationalities was developed by \_\_\_\_\_.
23. A form of cognitive therapy developed by Adele Rabbin builds on the finding that depressed people \_\_\_\_\_ (do/do not) exhibit the self-serving bias.
24. Treatment that combines an attack on negative thinking with efforts to modify behavior is known as \_\_\_\_\_ therapy.

List several advantages of group therapy.

25. "T-groups" refer to groups of individuals participating in \_\_\_\_\_ training.
26. Rogers and other therapists developed a form of intensive group therapy known as the \_\_\_\_\_ group.
27. The type of group interaction that focuses on the social context in which the individual exists is \_\_\_\_\_.

*Evaluating Psychotherapies* (pp. 556–564)

28. In contrast to earlier times, most therapy today \_\_\_\_\_ (is/is not) provided by psychiatrists.
29. A majority of psychotherapy clients express \_\_\_\_\_ (satisfaction/dissatisfaction) with their therapy.
30. A long-term study of 500 Massachusetts boys found that those who received intensive counseling \_\_\_\_\_ (had/did not have) significantly fewer problems than a control group.
31. The debate over the effectiveness of psychotherapy began with a study by \_\_\_\_\_; it showed that the rate of improvement for those who received therapy \_\_\_\_\_ (was/was not) higher than the rate for those who did not.
32. A statistical technique that makes it possible to combine the results of many different psychotherapy outcome studies is called \_\_\_\_\_. Overall, the results of such analyses indicate that psychotherapy is \_\_\_\_\_ (somewhat effective/ineffective).
33. As a rule, psychotherapy is most effective with problems that are \_\_\_\_\_ (specific/nonspecific).
34. Comparisons of the effectiveness of different forms of therapy reveal \_\_\_\_\_ (clear/no clear) differences.
35. With phobias, compulsions, and other specific behavior problems, \_\_\_\_\_ therapies have been the most effective. For depression, the \_\_\_\_\_ therapies have been the most successful.
36. The beneficial effect of a person's belief in treatment is called the \_\_\_\_\_.
37. Several studies found that treatment for mild problems offered by paraprofessionals \_\_\_\_\_ (is/is not) as effective as that offered by professional therapists.

38. Generally speaking, psychotherapists' personal values \_\_\_\_\_ (do/do not) influence their therapy.
39. North American therapists typically reflect their culture's \_\_\_\_\_ by giving priority to clients' \_\_\_\_\_.

### *The Biomedical Therapies* (pp. 564–568)

40. The most widely used biomedical treatments are the \_\_\_\_\_ therapies. Thanks to these therapies, the number of residents in mental hospitals has \_\_\_\_\_ (increased/decreased) sharply.
41. The field that studies the effects of drugs on the mind and behavior is \_\_\_\_\_.
42. When neither the patients nor the staff are aware of which condition a given individual is in, a \_\_\_\_\_ study is being conducted.
43. One effect of \_\_\_\_\_ drugs, such as \_\_\_\_\_, is to help those experiencing \_\_\_\_\_ (positive/negative) symptoms of schizophrenia by decreasing their responsiveness to irrelevant stimuli; schizophrenia patients who are apathetic and withdrawn may be more effectively treated with the drug \_\_\_\_\_. These drugs work by blocking the receptor sites for the neurotransmitter \_\_\_\_\_.
44. Valium and Librium are classified as \_\_\_\_\_ drugs. These drugs depress activity in the \_\_\_\_\_.
45. Drugs that are prescribed to alleviate depression are called \_\_\_\_\_ drugs. These drugs work by increasing levels of the neurotransmitters \_\_\_\_\_ and \_\_\_\_\_. One example of this type of drug is \_\_\_\_\_.
46. In order to stabilize the mood swings of a bipolar disorder, the drug \_\_\_\_\_ is often prescribed.
47. The therapeutic technique in which the patient

receives an electric shock to the brain is referred to as \_\_\_\_\_ therapy, abbreviated as \_\_\_\_\_.

48. ECT is most often used with patients suffering from severe \_\_\_\_\_. One theory of how this treatment works suggests that it increases release of the neurotransmitter \_\_\_\_\_.
49. The biomedical therapy in which a portion of brain tissue is removed or destroyed is called \_\_\_\_\_.
50. In the 1930s, Moniz developed an operation called the \_\_\_\_\_. In this procedure, the \_\_\_\_\_ lobe of the brain is disconnected from the rest of the brain.
51. Today, most psychosurgery has been replaced by the use of \_\_\_\_\_ or some other form of treatment.

### *Preventing Psychological Disorders* (pp. 569–570)

52. Unlike the psychotherapies and biomedical therapies, which focus on treatment of the \_\_\_\_\_, psychologists who practice preventive mental health believe that it is necessary to work on changing \_\_\_\_\_ conditions.

### **FOCUS ON PSYCHOLOGY:** **Job-Related Psychotherapy**

In his classic book, *A General Introduction to Psychoanalysis*, Sigmund Freud wrote that a healthy adult was one who could love and work. While Freud focused on issues more closely related to love than work, contemporary psychotherapists are finding that the nature of their clients' jobs is an increasingly important factor in their psychological well-being.

Many research studies have demonstrated the importance of work. Researchers have found, for example, that people who are out of work often feel depressed and empty. And, when people are asked what they would do if they suddenly became millionaires, more than 80 percent say they would continue to work at their regular jobs (Berger, 1994). As psychologist Douglas LaBier, author of *Modern Madness: The Emotional Fallout of Success*, puts it, increasingly for many of us "career and identity are inextricably bound up: Indeed they are almost equivalent."

Evidence for this career-identity merger comes from research showing that troubled behavior, including depression, anxiety, and drug abuse, is often a reaction to difficulties at work rather than a symptom of an underlying personality disorder. Other evidence comes from the trend toward occupational specialization among psychotherapists. According to science writer Ronni Sarnoff, "Work-proud dentists, police officers, middle managers, tennis champions, stockbrokers and other professionals have begun searching for therapists who talk their language and appreciate the tremendous importance of work in their lives."

Specialization exemplifies the spirit of eclectic therapy discussed in the text: Some forms of therapy are more effective than others for certain problems and, apparently, for certain professions. Stress-management techniques such as biofeedback and counter-conditioning—both types of behavior therapy—have proven especially beneficial in treating stress-related problems. One New York therapist, for example, specializes in treating stress-related hypertension and headaches in corporate executives whose complaints have been diagnosed as psychophysiological.

Performance enhancement, also a form of behavior therapy, has been especially successful with clients in sales and business management. Originally developed by sports psychologists, performance enhancement helps people to attain "peak performance" in their events, or jobs, through visualization and rehearsal of critical situations and the application of other therapies involving operant conditioning techniques.

Traditional psychoanalysis seems to be most effective with artists, actors and actresses, writers, and people in the helping professions (including psychotherapy). Through free association, dream analysis, and therapist interpretation, such clients are able to deeply probe their problems and gain insight into their causes.

Group therapy is another technique that is becoming popular with therapists who are also occupational specialists. With this approach people employed in the same line of work are able to confront their problems together. Not only may they be able to help each other, but they are also better able than outsiders to empathize with the troubled individual.

As our identities and well-being become even more closely connected with our work, the trend toward occupational specialization in psychotherapy can certainly be expected to continue. The healthy adult may become the one who can love and work and find the right therapist for his or her profession should troubled times arise.

Sources: Berger, K. S. (1994). *The developing person through the life span* (3rd ed.). New York: Worth Publishers.

Sarnoff, R. (1989, July/August). Is your job driving you crazy? *Psychology Today*, pp. 41–45.

## Progress Test 1

### Multiple-Choice Questions

Circle your answers to the following questions and check them with the answers on page 405. If your answer is incorrect, read the explanation for why it is incorrect and then consult the appropriate pages of the text (in parentheses following the correct answer).

- Electroconvulsive therapy is most useful in the treatment of:
  - schizophrenia.
  - depression.
  - personality disorders.
  - anxiety disorders.
  - bipolar disorder.
- The technique in which a person is asked to report everything that comes to his or her mind is called \_\_\_\_\_; this technique is favored by \_\_\_\_\_ therapists.
  - active listening; cognitive
  - spontaneous remission; humanistic
  - free association; psychoanalytic
  - systematic desensitization; behavior
- Of the following categories of psychotherapy, which is known for its nondirective nature?
  - psychoanalysis
  - humanistic therapy
  - behavior therapy
  - cognitive therapy
- Which of the following is *not* a common criticism of psychoanalysis?
  - It emphasizes awareness of past feelings.
  - It provides interpretations that are hard to disprove.
  - It is generally a very expensive process.
  - It gives therapists too much control over patients.
- The computer program ELIZA was designed to simulate a:
  - psychoanalyst.
  - behavior therapist.
  - cognitive therapist.
  - humanistic therapist.
- Which of the following is *not* necessarily an advantage of group therapies over individual therapies?
  - They tend to take less time for the therapist.
  - They tend to cost less money for the client.

- c. They are more effective.  
d. They allow the client to test new behaviors in a social context.
7. Which biomedical therapy is *most* likely to be practiced today?  
a. psychosurgery  
b. electroconvulsive therapy  
c. drug therapy  
d. counterconditioning  
e. aversive conditioning
8. The effectiveness of psychotherapy has been assessed both through clients' perspectives and through controlled research studies. What have such assessments found?  
a. Clients' perceptions and controlled studies alike strongly affirm the effectiveness of psychotherapy.  
b. Whereas clients' perceptions strongly affirm the effectiveness of psychotherapy, studies point to more modest results.  
c. Whereas studies strongly affirm the effectiveness of psychotherapy, many clients feel dissatisfied with their progress.  
d. Clients' perceptions and controlled studies alike paint a very mixed picture of the effectiveness of psychotherapy.
9. Which of the following best describes the results of the 30-year follow-up study of 500 Massachusetts boys who had been considered predelinquents?  
a. Predelinquent boys who received counseling had fewer problems as adults than untreated predelinquent boys.  
b. Predelinquent boys who did not receive counseling had slightly fewer problems as adults than boys who received counseling.  
c. Predelinquent boys who underwent behavior therapy had fewer problems as adults than boys who underwent psychoanalysis.  
d. Predelinquent boys who underwent psychoanalysis had fewer problems as adults than boys who underwent behavior therapy.
10. The results of meta-analysis of the effectiveness of different psychotherapies reveals that:  
a. no single type of therapy is consistently superior.  
b. behavior therapies are most effective in treating specific problems, such as phobias.  
c. cognitive therapies are most effective in treating depressed emotions.  
d. all of the above are true.
11. The antipsychotic drugs appear to produce their effects by blocking the receptor sites for:  
a. dopamine.                      c. norepinephrine.  
b. epinephrine.                    d. serotonin.
12. Psychologists who advocate a \_\_\_\_\_ approach to mental health believe that many psychological disorders could be prevented by changing the disturbed individual's \_\_\_\_\_.  
a. biomedical; diet  
b. family; behavior  
c. humanistic; feelings  
d. psychoanalytic; behavior  
e. preventive; environment
13. An eclectic psychotherapist is one who:  
a. takes a nondirective approach in helping clients solve their problems.  
b. views psychological disorders as usually stemming from one cause, such as a biological abnormality.  
c. uses one particular technique, such as psychoanalysis or counterconditioning, in treating disorders.  
d. uses a variety of techniques, depending on the client and the problem.
14. The technique in which a therapist echoes and restates what a person says in a nondirective manner is called:  
a. active listening.  
b. free association.  
c. systematic desensitization.  
d. meta-analysis.  
e. interpretation.
15. Which form of therapy emphasizes bringing unconscious feelings into awareness and taking full responsibility for oneself in the present?  
a. psychoanalysis  
b. behavior therapy  
c. Gestalt therapy  
d. person-centered therapy
16. The technique of systematic desensitization is based on the premise that maladaptive symptoms are:  
a. a reflection of irrational thinking.  
b. conditioned responses.  
c. expressions of unfulfilled wishes.  
d. all of the above.
17. The operant conditioning technique in which desired behaviors are rewarded with points or poker chips that can later be exchanged for various rewards is called:

- a. counterconditioning.
  - b. systematic desensitization.
  - c. a token economy.
  - d. rational-emotive therapy.
18. One variety of \_\_\_\_\_ therapy is based on the finding that depressed people often attribute their failures to \_\_\_\_\_ .
- a. humanistic; themselves
  - b. behavior; external circumstances
  - c. cognitive; external circumstances
  - d. cognitive; themselves
19. A person can derive benefits from psychotherapy simply by believing in it. This illustrates the importance of:
- a. spontaneous remission.
  - b. the placebo effect.
  - c. the transference effect.
  - d. interpretation.
20. Before 1950, the main mental health providers were:
- a. psychologists.
  - b. paraprofessionals.
  - c. psychiatrists.
  - d. the clergy.
  - e. social workers.

### Matching Items

Match each term with the appropriate definition or description.

#### Terms

- \_\_\_\_\_ 1. cognitive therapy
- \_\_\_\_\_ 2. behavior therapy
- \_\_\_\_\_ 3. systematic desensitization
- \_\_\_\_\_ 4. rational-emotive therapy
- \_\_\_\_\_ 5. person-centered therapy
- \_\_\_\_\_ 6. Gestalt therapy
- \_\_\_\_\_ 7. aversive conditioning
- \_\_\_\_\_ 8. psychoanalysis
- \_\_\_\_\_ 9. preventive mental health
- \_\_\_\_\_ 10. biomedical therapy
- \_\_\_\_\_ 11. counterconditioning

#### Definitions or Descriptions

- a. associates unwanted behavior with unpleasant experiences
- b. associates a relaxed state with anxiety-arousing stimuli
- c. emphasizes the social context of psychological disorders
- d. attempts to eliminate irrational thinking through a confrontational approach
- e. category of therapies that teach people more adaptive ways of thinking and acting
- f. helps people become aware of unconscious feelings and assume responsibility for them in the present
- g. therapy developed by Carl Rogers
- h. therapy based on Freud's theory of personality
- i. treatment with psychosurgery, electroconvulsive therapy, or drugs
- j. classical conditioning procedure in which new responses are conditioned to stimuli that trigger unwanted behaviors
- k. category of therapies based on learning principles derived from classical and operant conditioning

## Progress Test 2

Progress Test 2 should be completed during a final chapter review. Answer the following questions after you thoroughly understand the correct answers for the Chapter Review and Progress Test 1.

### Multiple-Choice Questions

1. Carl Rogers was a \_\_\_\_\_ therapist who was the creator of \_\_\_\_\_ therapy.
  - a. behavior; desensitization
  - b. psychoanalytic; insight
  - c. humanistic; person-centered
  - d. cognitive; rational-emotive

2. Using techniques of classical conditioning to develop an association between unwanted behavior and an unpleasant experience is known as:
  - a. aversive conditioning.
  - b. systematic desensitization.
  - c. transference.
  - d. electroconvulsive therapy.
  - e. a token economy.
3. Which type of psychotherapy emphasizes the individual's inherent potential for self-fulfillment?
  - a. behavior therapy
  - b. psychoanalysis
  - c. humanistic therapy
  - d. biomedical therapy
4. Which type of psychotherapy combines the psychoanalytic emphasis on making clients aware of unconscious feelings with the humanistic emphasis on taking responsibility for those feelings?
  - a. person-centered therapy
  - b. Gestalt therapy
  - c. rational-emotive therapy
  - d. cognitive therapy
  - e. family therapy
5. Which type of psychotherapy focuses on changing unwanted behaviors rather than on discovering their underlying causes?
  - a. behavior therapy
  - b. cognitive therapy
  - c. humanistic therapy
  - d. psychoanalysis
6. The techniques of counterconditioning are based on principles of:
  - a. observational learning.
  - b. classical conditioning.
  - c. operant conditioning.
  - d. behavior modification.
7. In which of the following does the client learn to associate a relaxed state with a hierarchy of anxiety-arousing situations?
  - a. rational-emotive therapy
  - b. aversive conditioning
  - c. counterconditioning
  - d. systematic desensitization
8. Principles of operant conditioning underlie:
  - a. counterconditioning.
  - b. systematic desensitization.
  - c. rational-emotive therapy.
  - d. aversive conditioning.
  - e. the token economy.
9. Which of the following is *not* a common criticism of behavior therapy?
  - a. Clients may not develop intrinsic motivation for their new behaviors.
  - b. Behavior control is unethical.
  - c. Although one symptom may be eliminated, another may replace it unless the underlying problem is treated.
  - d. All of the above are criticisms of behavior therapy.
10. Which type of therapy focuses on eliminating irrational thinking?
  - a. Gestalt therapy
  - b. person-centered therapy
  - c. rational-emotive therapy
  - d. behavior therapy
11. Antidepressant drugs are believed to work by affecting one or more of each of the following neurotransmitters *except*:
  - a. dopamine.
  - b. serotonin.
  - c. norepinephrine.
  - d. acetylcholine.
12. The following are some of the conclusions drawn in the textbook regarding the effectiveness of psychotherapy. For which of these conclusions did the Massachusetts study of predelinquent boys provide evidence?
  - a. Clients' perceptions of the effectiveness of therapy usually are very accurate.
  - b. Clients' perceptions of the effectiveness of therapy differ somewhat from the objective findings.
  - c. Individuals who receive treatment do somewhat better than individuals who do not.
  - d. Overall, no one type of therapy is a "winner," but certain therapies are more suited to certain problems.
13. Which of the following is the drug most commonly used to treat the bipolar disorder?
  - a. Valium
  - b. chlorpromazine
  - c. Librium
  - d. lithium
14. The most widely prescribed drugs in biomedical therapy are the:
  - a. antianxiety drugs
  - b. antipsychotic drugs.
  - c. antidepressant drugs.
  - d. amphetamines.
15. Which form of therapy is *most* likely to be successful in treating depression?
  - a. behavior therapy
  - b. cognitive therapy
  - c. humanistic therapy
  - d. psychoanalysis
  - e. family therapy

- a. behavior therapy      c. cognitive therapy  
b. psychoanalysis      d. humanistic therapy
16. Although Moniz won the Nobel prize for developing the lobotomy procedure, the technique is not widely used today because:
- it produces a lethargic, immature personality.
  - it is irreversible.
  - calming drugs became available in the 1950s.
  - of all of the above reasons.
17. A meta-analysis of research studies comparing the effectiveness of professional therapists with paraprofessionals found that:
- the professionals were much more effective than the paraprofessionals.
  - the paraprofessionals were much more effective than the professionals.
  - except in treating depression, the paraprofessionals were about as effective as the professionals.
  - the paraprofessionals were about as effective as the professionals.
18. Among the common ingredients of the psychotherapies is:
- the offer of a therapeutic relationship.
  - the expectation among clients that the therapy will prove helpful.
- the chance to develop a fresh perspective on oneself and the world.
  - all of the above.
19. Family therapy differs from other forms of psychotherapy because it focuses on:
- using a variety of treatment techniques.
  - conscious rather than unconscious processes.
  - the present instead of the past.
  - how family tensions may cause individual problems.
20. One reason that aversive conditioning may only be temporarily effective is that:
- for ethical reasons, therapists cannot use sufficiently intense unconditioned stimuli to sustain classical conditioning.
  - patients are often unable to become sufficiently relaxed for conditioning to take place.
  - patients know that outside the therapist's office they can engage in the undesirable behavior without fear of aversive consequences.
  - most conditioned responses are elicited by many nonspecific stimuli and it is impossible to countercondition them all.

### Matching Items

Match each term with the appropriate definition or description.

#### Terms

- \_\_\_\_\_ 1. active listening  
\_\_\_\_\_ 2. token economy  
\_\_\_\_\_ 3. placebo effect  
\_\_\_\_\_ 4. lobotomy  
\_\_\_\_\_ 5. lithium  
\_\_\_\_\_ 6. meta-analysis  
\_\_\_\_\_ 7. psychopharmacology  
\_\_\_\_\_ 8. double-blind technique  
\_\_\_\_\_ 9. Valium  
\_\_\_\_\_ 10. free association

#### Definitions or Descriptions

- type of psychosurgery
- procedure for statistically combining the results of many experiments
- antidepressant drug
- empathic technique used in person-centered therapy
- the beneficial effect of a person's expecting that treatment will be effective
- antianxiety drug
- technique of psychoanalytic therapy
- an operant conditioning procedure
- the study of the effects of drugs on the mind and behavior
- experimental procedure in which both the patient and staff are unaware of a patient's treatment condition

## Thinking Critically About Chapter 16

Answer these questions the day before an exam as a final check on your understanding of the chapter's terms and concepts.

### Multiple-Choice Questions

- During a session with his psychoanalyst, Jamal hesitates while describing a highly embarrassing thought. In the psychoanalytic framework, this is an example of:
  - transference.
  - insight.
  - mental repression.
  - resistance.
- During psychoanalysis, Jane has developed strong feelings of hatred for her therapist. The analyst interprets Jane's behavior in terms of a \_\_\_\_\_ of her feelings toward her father.
  - projection
  - resistance
  - sublimation
  - transference
- Given that Jim's therapist attempts to help him by offering genuineness, acceptance, and empathy, she is probably practicing:
  - psychoanalysis.
  - behavior therapy.
  - Gestalt therapy.
  - cognitive therapy.
  - person-centered therapy.
- To help Sam quit smoking, his therapist blew a blast of smoke into Sam's face each time Sam inhaled. Which technique is the therapist using?
  - rational-emotive therapy
  - "behavior modification"
  - systematic desensitization
  - aversive conditioning
- After Darnel dropped a pass in an important football game, he became depressed and vowed to quit the team because of his athletic incompetence. The campus psychologist challenged his illogical reasoning and pointed out that Darnel's "incompetence" had earned him an athletic scholarship. The psychologist's response was most typical of a \_\_\_\_\_ therapist.
  - Gestalt
  - psychoanalytic
  - person-centered
  - rational-emotive
- Seth enters therapy to talk about some issues that have been upsetting him. The therapist prescribes some medication to help him. The therapist is most likely a:
  - psychologist.
  - psychiatrist.
  - psychiatric social worker.
  - clinical social worker.
- In an experiment testing the effects of a new antipsychotic drug, neither Dr. Cunningham nor her patients know whether the patients are in the experimental or the control group. This is an example of the \_\_\_\_\_ technique.
  - meta-analysis
  - within-subjects
  - double-blind
  - single-blind
- Brad is seeking a psychotherapist who will help him get in touch with himself by bringing unconscious feelings into awareness and focusing on his present problems. Brad should probably choose a \_\_\_\_\_ therapist.
  - psychoanalytic
  - Gestalt
  - humanistic
  - behavioral
- A relative wants to know which type of therapy works best. You should tell your relative that:
  - psychotherapy does not work.
  - behavior therapy is the most effective.
  - cognitive therapy is the most effective.
  - group therapy is best for his problem.
  - no one type of therapy is consistently the most successful.
- Leota is startled when her therapist says that she needs to focus on eliminating her problem behavior rather than gaining insight into its underlying cause. Most likely, Leota has consulted a \_\_\_\_\_ therapist.
  - behavior
  - humanistic
  - cognitive
  - psychoanalytic
- In order to help him overcome his fear of flying, Duane's therapist has him construct a hierarchy of anxiety-triggering stimuli and then learn to associate each with a state of deep relaxation. Duane's therapist is using the technique called:
  - systematic desensitization.
  - aversive conditioning.
  - shaping.
  - free association.
  - rational-emotive therapy.
- A patient in a hospital receives poker chips for making her bed, being punctual at meal times, and maintaining her physical appearance. The poker chips can be exchanged for privileges, such as television viewing, snacks, and magazines. This is an example of the \_\_\_\_\_ therapy technique called \_\_\_\_\_.
  - Gestalt; systematic desensitization
  - behavior; token economy

- c. cognitive; token economy  
d. humanistic; systematic desensitization
13. Ben is a cognitive behavior therapist. Compared to Rachel, who is a behavior therapist, Ben is more likely to:
- base his therapy on principles of operant conditioning.
  - base his therapy on principles of classical conditioning.
  - address clients' attitudes as well as behaviors.
  - focus on clients' unconscious urges.
14. A psychotherapist who believes that the best way to treat psychological disorders is to prevent them from developing would be *most* likely to view disordered behavior as:
- maladaptive thoughts and actions.
  - expressions of unconscious conflicts.
  - conditioned responses.
  - an understandable response to stressful social conditions.
15. Linda's doctor prescribes medication that blocks the activity of dopamine in her nervous system. Evidently, Linda is being treated with an \_\_\_\_\_ drug.
- antipsychotic
  - antianxiety
  - antidepressant
  - anticonvulsive
16. Abraham's doctor prescribes medication that increases the availability of norepinephrine in his nervous system. Evidently, Abraham is being treated with an \_\_\_\_\_ drug.
- antipsychotic
  - antianxiety
  - antidepressant
  - anticonvulsive
17. In concluding her talk entitled "Psychosurgery Today," Ashley states that:
- "Psychosurgery is still widely used throughout the world."
  - "Electroconvulsive therapy is the only remaining psychosurgical technique that is widely practiced."
  - "With advances in psychopharmacology, psychosurgery has largely been abandoned."
  - "Although lobotomies remain popular, other psychosurgical techniques have been abandoned."
18. A psychiatrist has diagnosed a patient as having bipolar disorder. It is likely that she will prescribe:
- an antipsychotic drug.
  - lithium.
  - an antianxiety drug.
  - a drug that blocks receptor sites for serotonin.
19. Which type(s) of psychotherapy would be most likely to use the interpretation of dreams as a technique for bringing unconscious feelings into awareness?
- psychoanalysis
  - Gestalt therapy
  - cognitive therapy
  - all of the above
  - both a. and b.
20. Of the following therapists, who would be most likely to interpret a person's psychological problems in terms of repressed impulses?
- a behavior therapist
  - a cognitive therapist
  - a humanistic therapist
  - a psychoanalyst

### Essay Question

Willie has been diagnosed as suffering from major depressive disorder. Describe the treatment he might receive from a psychoanalyst, a cognitive therapist, and a biomedical therapist. (Use the space below to list points you want to make and organize them. Then write the essay on a separate sheet of paper.)

## Key Terms

Using your own words, on a separate piece of paper write a brief definition or explanation of each of the following terms.

1. psychotherapy
2. eclectic approach
3. psychoanalysis
4. resistance
5. interpretation
6. transference
7. person-centered therapy
8. active listening
9. Gestalt therapy
10. behavior therapy
11. counterconditioning
12. systematic desensitization
13. aversive conditioning
14. token economy
15. cognitive therapy
16. rational-emotive therapy
17. family therapy
18. meta-analysis
19. psychopharmacology
20. lithium
21. electroconvulsive therapy (ECT)
22. psychosurgery
23. lobotomy

## ANSWERS

### Guided Study

The following guidelines provide the main points that your answers should have touched upon.

1. Psychotherapy is the planned treatment of mental and emotional problems based on the interaction between a socially sanctioned healer and a sufferer. The various types of psychotherapy derive from psychology's major personality theories: psychoanalytic, humanistic, behavioral, and cognitive. Half of all contemporary psychotherapists

take an eclectic approach, using a blend of therapies tailored to meet their clients' particular problems.

2. Psychoanalysis assumes that psychological problems are caused by repressed unconscious conflicts that develop during childhood, and so its goal is to bring these feelings into conscious awareness and help the person work through them.

Psychoanalysts may ask their patients to report everything that comes to mind (free association). Blocks in the flow of retrieval (resistance) are believed to indicate the repression of sensitive material. The analyst's interpretations of resistances aim to provide the patient with insight into their underlying meaning. Psychoanalysts interpret dreams for their latent content and the transference of feelings from early relationships in order to expose repressed feelings.

Psychoanalysis has been criticized for offering after-the-fact interpretations that are impossible to prove or disprove and for being a lengthy and expensive process that only the relatively well-off can afford.

3. Humanistic therapists aim to boost self-fulfillment by helping people grow in self-awareness and self-acceptance. Unlike psychoanalysis, humanistic therapies focus on conscious thoughts as they occur in the present. Carl Rogers's nondirective person-centered therapy, which is based on the assumption that most people have within themselves the resources for growth, aims to provide an environment in which therapists exhibit genuineness, acceptance, and empathy. Humanistic therapists often use *active listening* to provide a psychological mirror that helps clients see themselves more clearly.
4. Perls' Gestalt therapy combines the psychoanalytic emphasis on bringing unconscious feelings into awareness with the humanistic emphasis on taking responsibility for oneself in the present. By using role-playing and other techniques, Gestalt therapists encourage clients to become more aware and expressive of their feelings.
5. Behavior therapy applies learning principles to eliminate unwanted behavior. Counterconditioning describes classical-conditioning procedures that condition new responses to stimuli that trigger unwanted behaviors. One type of counterconditioning, systematic desensitization, is used to treat phobias, for example, by conditioning people to associate a pleasant, relaxed state with gradually increasing anxiety-provoking stimuli. Aversive conditioning is a type of

# Stress and Health

## Chapter Overview

Behavioral factors play a major role in maintaining health and causing illness. The effort to understand this role more fully has led to the emergence of the interdisciplinary field of behavioral medicine. The subfield of health psychology focuses on questions such as: How do our perceptions of a situation determine the stress we feel? How do our emotions and personality influence our risk of disease? How can psychology contribute to the prevention of illness?

Chapter 17 addresses key topics in health psychology. First and foremost is stress—its nature, its effects on the body, and ways in which it can be managed. Second, the chapter looks at the psychology of illness, for example, at people’s reactions to illness and the mechanisms by which stress contributes to heart disease, infectious diseases, and cancer. The chapter concludes by examining several factors that affect health, including smoking, nutrition, and obesity, and by looking at behaviors that promote good health.

NOTE: Answer guidelines for all Chapter 17 questions begin on page 427.

## Guided Study

The text chapter should be studied one section at a time. Before you read, preview each section by skimming it, noting headings and boldface items. Then read the appropriate section objectives from the following outline. Keep these objectives in mind and, as you read the chapter section, search for the information that will enable you to meet each objective. Once you have finished a section, write out answers for its objectives.

1. Identify the major concerns of behavioral medicine and health psychology.

### *Stress and Illness* (pp. 573–589)

David Myers at times uses idioms that are unfamiliar to some readers. If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 434–435 for an explanation: *pent-up emotion*; *slippery concept*; *heart rate zooms*; *uprooting*; *a cluster of crises*; *flow through a psychological filter*; *Daily Hassles*; *flashbacks and nightmares*; *mellow and laid-back*; *after the honeymoon period*; *combat ready*; *headless horseman*; *Marital spats*; *ever-nice* . . . *bottle up*; *southpaws*; *pseudoscientific hocus-pocus*.

2. Define *stress* and describe the body’s response to stress.

3. Discuss research findings on the health consequences of stressful life events, as well as the factors that influence our vulnerability to stress.
4. Discuss the role of stress in coronary heart disease and contrast Type A and Type B personalities.
5. Describe how the immune system defends the body and discuss the effect of stress on the immune system.

#### *Reactions to Illness* (pp. 589-592)

If you do not know the meaning of the following expression in the context in which it appears in the text, refer to page 435 for an explanation: *opens the door to social suggestion.*

6. Discuss the relationship between symptoms and awareness of illness and identify the factors that influence the decision to seek medical treatment.

#### *Promoting Health* (pp. 592-609)

If you do not know the meaning of any of the following words, phrases, or expressions in the context in which they appear in the text, refer to pages 435-436 for an explanation: *run away from their troubles; movement movement . . . couch potatoes!; stepped back . . . overblown and oversold; laughter is the best medicine; heartaches; open-heart therapy; cool models; slow-motion suicide; gauche rather than cool; role-played; skipping breakfast; win the battle of the bulge; scarfing too many hot fudge sundaes; thinner wallet.*

7. Identify and discuss different strategies for coping with stress.
8. Describe the relationship between health and social support.
9. Explain why people smoke and discuss ways of preventing and reducing this health hazard.
10. Discuss the relationship between nutrition and physical well-being.

11. Discuss the factors that contribute to obesity.
12. Explain whether genes play no role, some role, or an exclusive role in causing obesity.

## Chapter Review

When you have finished reading the chapter, work through the material that follows to review it. Complete the sentences and answer the questions. As you proceed, evaluate your performance for each section by consulting the answers on page 429. Do not continue with the next section until you understand each answer. If you need to, review or reread the appropriate section in the textbook before continuing.

- The four leading causes of serious illness and death in the United States are \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  - Today, half the mortality from the 10 leading causes of death can be traced to people's \_\_\_\_\_.
  - List several of the behaviors that have been linked to the leading causes of death: \_\_\_\_\_.
  - The new field that integrates behavioral and medical knowledge relevant to health and disease is \_\_\_\_\_.
  - The subfield of psychology related to behavioral medicine is called \_\_\_\_\_ psychology.
- Stress and Illness* (pp. 573–589)
- The process by which we appraise and cope with environmental threats and challenges is called \_\_\_\_\_.
  - In the 1920s, physiologist Walter \_\_\_\_\_ began studying the effect of stress on the body. He discovered that the hormones \_\_\_\_\_ and \_\_\_\_\_ are released into the bloodstream in response to stress. This and other bodily changes due to stress are mediated by the \_\_\_\_\_ nervous system, thus preparing the body for “\_\_\_\_\_.”
  - More recently, physiologists have discovered that stress also triggers release of the hormone \_\_\_\_\_.
  - In studying animals' reactions to stressors, Selye repeatedly found three physiological effects: enlargement of the \_\_\_\_\_ cortex, shrinkage of the \_\_\_\_\_ gland, and formation of \_\_\_\_\_ in the stomach. He referred to this bodily response to stress as the \_\_\_\_\_.
  - During the first phase of the GAS—the \_\_\_\_\_ reaction—the person is in a state of shock due to the sudden arousal of the \_\_\_\_\_ nervous system.
  - This is followed by the stage of \_\_\_\_\_, in which the body's resources are mobilized to cope with the stressor.
  - If stress continues, the person enters the stage of \_\_\_\_\_. During this stage a person is \_\_\_\_\_ (more/less) vulnerable to disease.
  - In the wake of catastrophic events, such as floods, hurricanes, and fires, there often is an increase in the number of \_\_\_\_\_.
  - Research studies have found that people who have recently been widowed, fired, or divorced

are \_\_\_\_\_ (more/no more) vulnerable to illness than other people.

15. In determining a person's response to a major life change, the actual situation is less important than the way it is \_\_\_\_\_.
16. For most people, the most significant sources of stress are \_\_\_\_\_. Persistent on-the-job stress can lead to the physical, mental, and emotional exhaustion called \_\_\_\_\_.
17. Negative situations are especially stressful when they are appraised as \_\_\_\_\_.
18. People who have an \_\_\_\_\_ attitude are *less* likely than others to suffer ill health.
19. In animals and humans, sudden lack of control is followed by a drop in immune responses and a rise in the levels of \_\_\_\_\_.
20. The leading cause of death in North America is \_\_\_\_\_. List several risk factors for developing this condition: \_\_\_\_\_.
21. Taken together, these factors \_\_\_\_\_ (account/do not account) for most instances of heart disease. Some other factor may be involved, and that may be \_\_\_\_\_.
22. Friedman and Rosenman discovered that tax accountants experience an increase in blood \_\_\_\_\_ level and blood-\_\_\_\_\_ speed during tax season. This showed there was a link between coronary warning indicators and \_\_\_\_\_.

Friedman and Rosenman, in a subsequent study, grouped people into Type A and Type B personalities. Characterize these types and indicate the difference that emerged between them over the course of this 9-year study.

23. Type A persons tend to engage in certain behaviors that contribute to risk of coronary disease, including \_\_\_\_\_.
24. In relaxed situations, Type A persons \_\_\_\_\_ (differ/do not differ) from Type B persons in measures of physiological reactivity.
25. An experiment by Williams showed that when Type A students were challenged, their output of stress hormones was \_\_\_\_\_ (greater than/the same as) that of their Type B classmates. These hormones may increase the buildup of \_\_\_\_\_ in the artery walls. The hardening of the arteries that may result is called \_\_\_\_\_.
26. When a person is angered, blood flow is diverted away from the internal organs, including the liver, which is responsible for removing \_\_\_\_\_ and fat from the blood. This finding may explain why \_\_\_\_\_ (Type A/Type B) persons have elevated levels of these substances in the blood.
27. The Type A characteristic that is most strongly linked with coronary heart disease is \_\_\_\_\_.
28. In \_\_\_\_\_ illnesses, physical symptoms are produced by psychological causes. Examples of such illnesses are certain forms of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_. Such illnesses appear to be linked to \_\_\_\_\_.
29. The body's system of fighting disease is the \_\_\_\_\_ system. This system includes two types of white blood cells, called \_\_\_\_\_: the \_\_\_\_\_, which fight bacterial infections, and the \_\_\_\_\_, which form in the \_\_\_\_\_ and attack viruses, cancer cells, and foreign substances. Another immune agent, called the \_\_\_\_\_, pursues and ingests foreign substances.
30. Stress can suppress the lymphocyte cells, result-

ing in a(n) \_\_\_\_\_  
(increase/decrease) in disease resistance.

Characterize the link between stress and cancer.

31. Experiments by Ader and Cohen demonstrate that the functioning of the body's immune system \_\_\_\_\_ (can/cannot) be affected by conditioning.

*Reactions to Illness* (pp. 589–592)

32. Most people \_\_\_\_\_ (are/are not) very accurate at diagnosing their physical state.
33. People tend to notice symptoms that fit with their preexisting disease \_\_\_\_\_. Some ailments also are \_\_\_\_\_ constructions, as people form the idea that their everyday symptoms match those of an ailment they've heard about. For this reason women may tend to overestimate the effects of \_\_\_\_\_ syndrome. Contrary to the presumptions of some employers, women's physical and mental skills \_\_\_\_\_ (do/do not) fluctuate noticeably with their menstrual cycles.

What evidence suggests that, for some women, PMS is a socially constructed disorder?

34. In terms of medical treatment, \_\_\_\_\_ (men/women) report more symptoms, visit physicians more often, and use more drugs.

*Promoting Health* (pp. 592–609)

35. Sustained exercise that increases heart and lung fitness is known as \_\_\_\_\_ exercise. Experiments \_\_\_\_\_ (have/have not) been able to demonstrate conclusively that such exercise reduces anxiety and depression, and alleviates the effects of stress.
36. A system for recording a physiological response and providing information concerning it is called \_\_\_\_\_. The instruments used in this system \_\_\_\_\_ (provide/do not provide) the individual with a means of controlling physiological responses.
37. Lowered blood pressure and strengthened immune defenses have been found to be characteristic of people who regularly practice \_\_\_\_\_.
38. Meyer Friedman found that modifying Type A behavior in a group of heart attack survivors \_\_\_\_\_ (reduced/did not significantly reduce) the rate of recurrence of heart attacks.
39. Researchers have found that life events may be less stressful for people who have a good sense of \_\_\_\_\_.
40. Another buffer against the effects of stress is \_\_\_\_\_ support.

State several possible reasons for the link between health and social support.

41. Advocates of behavioral medicine believe that creating programs to \_\_\_\_\_ disease by promoting healthy life-styles will result in lower health-care costs than will focusing only on \_\_\_\_\_ existing diseases.
42. The largest preventable cause of illness and premature death, smoking usually begins during \_\_\_\_\_ and is especially common among those who \_\_\_\_\_ .  
According to \_\_\_\_\_ - \_\_\_\_\_ theory, those who start smoking have friends who model smoking and pressure them to start.
43. As with other addictions, smokers become \_\_\_\_\_ on nicotine, develop \_\_\_\_\_ to its effects, and experience \_\_\_\_\_ symptoms when attempting to quit.
44. By terminating an aversive state, smoking provides a person with a powerful \_\_\_\_\_. In addition, nicotine triggers the release of epinephrine and norepinephrine, which increase \_\_\_\_\_, and of neurotransmitters that calm \_\_\_\_\_ and reduce \_\_\_\_\_ .  
For these reasons, most programs to help people quit smoking \_\_\_\_\_ (are/are not) very effective in the long run. The decline in the smoking rate among Americans is most pronounced among \_\_\_\_\_ (males/females) and those at \_\_\_\_\_ (higher/lower) socioeconomic levels.
45. Worldwide, per-person cigarette consumption is at an all-time \_\_\_\_\_ (low/high).
46. A study found that seventh graders who were taught to cope with peer pressure and advertisements for smoking were \_\_\_\_\_ (more/less) likely to begin smoking than were students in a control group.
47. Certain foods may affect mood and behavior by influencing the formation of specific \_\_\_\_\_ .
48. A relaxed state may be facilitated by eating foods high in \_\_\_\_\_, which increase the amount of tryptophan that the brain receives and can thus be used for synthesizing the neurotransmitter \_\_\_\_\_. Concentration and alertness, in contrast, may be improved by meals that have a high \_\_\_\_\_ content.
49. Hypertensive people tend to have a higher-than-normal intake of \_\_\_\_\_ but a lower-than-normal intake of \_\_\_\_\_ .
50. In developing societies where people face \_\_\_\_\_, obesity is considered a sign of \_\_\_\_\_ and \_\_\_\_\_ .
- Cite some of the ways in which obesity is a threat to physical and psychological health.
51. The energy equivalent of a pound of fat is approximately \_\_\_\_\_ calories. The immediate determinant of body fat is the size and number of \_\_\_\_\_ one has. This number is, in turn, determined by several factors, including \_\_\_\_\_ .
52. The size of fat cells \_\_\_\_\_ (can/cannot) be decreased by dieting; the number of fat cells \_\_\_\_\_ (can/cannot) be decreased by dieting.
53. Fat tissue has a \_\_\_\_\_ (higher/lower) metabolic rate than lean tissue. The result is that fat tissue requires \_\_\_\_\_ (more/less) food energy to be maintained.

54. Dieters tend to be more responsive than others to external food cues and, as a result, may secrete more \_\_\_\_\_, which triggers hunger.

Explain why, metabolically, many obese people find it so difficult to become and stay thin.

55. Studies of adoptees and twins \_\_\_\_\_ (do/do not) provide evidence of a genetic influence on obesity.
56. The weight resemblance between identical twin women is \_\_\_\_\_ (less than/the same as/greater than) that between identical twin men.
57. Obesity is \_\_\_\_\_ (more/less) common among lower-class than upper-class women and \_\_\_\_\_ (does/does not) vary from culture to culture.
58. Most obese persons who lose weight \_\_\_\_\_ (gain/do not gain) it back.

## FOCUS ON PSYCHOLOGY:

### Job-Related Stress: Who's in Charge Here?

It's almost a cliché: If you are an ambitious manager, chief executive officer, or professional, you are a prime candidate for heart disease. The psychological stresses of decision making and being "in charge" presumably cause this dismal prognosis. A public health study has contradicted this widespread belief by demonstrating that employees nearer to the bottom of the corporate ladder may be under even greater psychological stress than those at the top.

Industrial sociologist Robert Karasek and his colleagues evaluated the nature of the jobs held by more than 4800 male heart attack victims. The jobs were scored according to several criteria, including how physically and psychologically demanding they were and the degree of decision-making power exerted by the workers who held them. Surprisingly, the researchers found that most of the heart attack vic-

tims had not been employed in managerial positions or professional occupations; rather, they tended to be assembly-line workers, cooks, waiters, and laborers, for example. In fact, the rate of heart attacks among employees in such occupations was nearly three times that of those employed in managerial jobs.

According to the researchers, the stress of lower-echelon jobs is more than merely physical: "Job demands are potential sources of stress," they explain, "but how much freedom a worker has in deciding how to meet those demands will determine if they actually produce stress." Clearly, there are significant differences in the level of job control exerted by workers at the top and those at the bottom. Science writer Valerie Adler notes that in comparison to professionals such as doctors and lawyers, who have control over almost everything they do, low-status workers typically have little or no control over their work methods, schedules, or co-workers. This lack of control is a major factor in creating stress, and thus heart disease.

Although there have been fewer studies on the relationship between job stress and heart disease in women, Adler notes that the available evidence supports the low-control, high-stress hypothesis. The ongoing Framingham Heart Study, for example, has found that women having low-control clerical jobs have twice the incidence of heart disease as women whose jobs give them substantial personal control.

The results of these studies are consistent with the text discussion of the relationship between perceived control and stress. People who perceive that they have little control over their lives tend to suffer greater health problems. Even among laboratory rats, "helpless" rats that receive uncontrollable electric shocks are more likely to develop ulcers than those that control whether they are shocked.

These findings paint a rather bleak picture for workers who have little control in their jobs. There is hope, however. To reduce job-related stress, workers should try to become involved in whatever ways they can. For example, by discussing work conditions and procedures with management and other workers, they will increase their feelings of involvement and control—and this might even produce improved work conditions. The perception of control alone, even if not completely accurate, may help workers cope with the stresses of low-control jobs.

Sources: Adler, V. (1989, April). Little control = lots of stress. *Psychology Today*, 18–19.

Karasek, R., Theorell, T., Schwartz, J. E., Schnall, P. L., Pieper, C. F., & Michela, J. L. (1988, August). Job characteristics in relation to the prevalence of myocardial infarction in the US health examination survey and the health and nutrition examination survey. *American Journal of Public Health*, 78, 910–918.

## Progress Test 1

Circle your answers to the following questions and check them with the answers on page 430. If your answer is incorrect, read the explanation for why it is incorrect and then consult the appropriate pages of the text (in parentheses following the correct answer).

1. Behavioral and medical knowledge about factors influencing health form the basis of the field of:
  - a. health psychology.
  - b. holistic medicine.
  - c. behavioral medicine.
  - d. osteopathic medicine.
2. The stress hormones epinephrine and norepinephrine are released by the \_\_\_\_\_ gland in response to stimulation by the \_\_\_\_\_ branch of the nervous system.
  - a. pituitary; sympathetic
  - b. pituitary; parasympathetic
  - c. adrenal; sympathetic
  - d. adrenal; parasympathetic
3. During which stage of the general adaptation syndrome is a person especially vulnerable to disease?
  - a. alarm reaction
  - b. stage of resistance
  - c. stage of exhaustion
  - d. stage of adaptation
4. The leading cause of death in North America is:
  - a. lung cancer.
  - b. AIDS.
  - c. coronary heart disease.
  - d. alcohol-related accidents.
  - e. accidents.
5. Researchers Friedman and Rosenman refer to individuals who are very time-conscious, supermotivated, verbally aggressive, and easily angered as:
  - a. ulcer-prone personalities.
  - b. cancer-prone personalities.
  - c. Type A.
  - d. Type B.
6. One effect of the hormones epinephrine, norepinephrine, and cortisol is to:
  - a. lower the level of cholesterol in the blood.
  - b. promote the buildup of plaques on the artery walls.
  - c. divert blood away from the muscles of the body.
  - d. reduce stress.
  - e. decrease the amount of fat stored in the body.
7. Genuine illnesses that are caused by stress are called \_\_\_\_\_ illnesses.
  - a. psychophysiological
  - b. hypochondriacal
  - c. psychogenic
  - d. psychotropic
8. Stress has been demonstrated to place a person at increased risk of:
  - a. cancer.
  - b. tuberculosis.
  - c. bacterial infections.
  - d. viral infections.
  - e. all of the above.
9. Stress is defined as:
  - a. unpleasant or aversive events that cannot be controlled.
  - b. situations that threaten health.
  - c. the whole process by which we perceive and respond to challenging or threatening events.
  - d. anything that decreases immune responses.
10. In one experiment, both "executive" rats and "subordinate" rats received identical electric shocks, the only difference being whether the shocks could be:
  - a. predicted.
  - b. weakened.
  - c. shortened.
  - d. controlled.
11. People sometimes match their everyday symptoms to those of an ailment they've heard about, and then use it to explain their symptoms. This indicates that some "diseases" are actually:
  - a. placebo effects.
  - b. social constructs.
  - c. psychophysiological illnesses.
  - d. coping responses to stress.
  - e. psychosomatic.
12. Studies have demonstrated that meals that are high in \_\_\_\_\_ promote relaxation because they raise levels of \_\_\_\_\_.
  - a. carbohydrates; serotonin
  - b. carbohydrates; cortisol
  - c. protein; serotonin
  - d. protein; cortisol
13. A study in which people were asked to confide troubling feelings to an experimenter found that subjects typically:
  - a. did not truthfully report feelings and events.
  - b. experienced a sustained increase in blood pressure until the experiment was finished.
  - c. became physiologically more relaxed after confiding their problem.
  - d. denied having any problems.
14. Research suggests that \_\_\_\_\_ influences often lead a person to start smoking, while

\_\_\_\_\_ influences become important in explaining why people continue to smoke.

- a. biological; social
- b. social; biological
- c. biological; cognitive
- d. cognitive; biological

15. A study demonstrated that breast cancer patients who participated in weekly group therapy:

- a. survived nearly twice as long as nonparticipants.
- b. had reduced levels of lymphocytes in their bodies.
- c. had elevated levels of cortisol and other "good" stress hormones.
- d. experienced all of the above.

16. Research on genetic influences on obesity reveals that:

- a. the body weight of adoptees correlates with that of their biological parents.
- b. the body weight of adoptees correlates with that of their adoptive parents.
- c. identical twins usually have very different body weights.
- d. the body weights of identical twin women are more similar than those of identical twin men.
- e. none of the above is true.

17. Which of the following was *not* mentioned in the text as a potential health benefit of exercise?

- a. Exercise can increase ability to cope with stress.
- b. Exercise can lower blood pressure.
- c. Exercise can reduce depression and anxiety.
- d. Exercise improves functioning of the immune system.

18. Research studies demonstrate that after a catastrophe rates of \_\_\_\_\_ often increase.

- a. psychological disorders
- b. stress-related illnesses
- c. death
- d. all of the above
- e. none of the above

19. In one study, laboratory rats drank sweetened water with a drug that causes immune suppression. After repeated pairings of the taste with the drug:

- a. the animals developed tolerance for the drug and immune responses returned to normal.
- b. sweet water alone triggered immune suppression.
- c. dependency on the drug developed and withdrawal symptoms appeared when the drug was withheld.
- d. many of the animals died.

20. Social support \_\_\_\_\_ our ability to cope with stressful events.

- a. has no effect on
- b. usually increases
- c. usually decreases
- d. has an unpredictable effect on

## Progress Test 2

Progress Test 2 should be completed during a final chapter review. Answer the following questions after you thoroughly understand the correct answers for the Chapter Review and Progress Test 1.

### Multiple-Choice Questions

1. The field of health psychology is concerned with:
  - a. the prevention of illness.
  - b. the promotion of health.
  - c. the treatment of illness.
  - d. all of the above.
2. In order, the sequence of stages in the general adaptation syndrome is:
  - a. alarm reaction, stage of resistance, stage of exhaustion.
  - b. stage of resistance, alarm reaction, stage of exhaustion.
  - c. stage of exhaustion, stage of resistance, alarm reaction.
  - d. alarm reaction, stage of exhaustion, stage of resistance.
3. Which of the following explains why the percentage of left-handed people declines with age?
  - a. Childhood coercion causes natural lefties to become right-handed as they get older.
  - b. Today, lefties find it easier to learn to use their right hands.
  - c. Lefties tend to die at a younger age.
  - d. Most things are made for right-handers, so lefties are more accident-prone.
  - e. No conclusive explanation has been found.
4. "Burnout" refers to:
  - a. physical, emotional, and mental exhaustion brought on by persistent job-related stress.
  - b. the formation of plaques in the coronary arteries.
  - c. the tendency to respond to stress with anger.
  - d. the suppression of immune responses.
5. Which of the following statements concerning Type A and B persons is true?
  - a. Even when relaxed, Type A persons have higher blood pressure than Type B persons.

- b. When stressed, Type A persons show greater output of epinephrine, norepinephrine, and cortisol than Type B persons.
  - c. Type B persons tend to suppress anger more than Type A persons.
  - d. Type A persons tend to sleep more than Type B persons.
  - e. Type A persons tend to drink fewer caffeinated drinks than Type B persons.
6. According to the text, one-half of all deaths from the 10 leading causes of death in the United States can be attributed to:
- a. stress.
  - b. obesity.
  - c. nutrition.
  - d. behavior.
7. The disease- and infection-fighting cells of the immune system are:
- a. B lymphocytes.
  - b. T lymphocytes.
  - c. both a. and b.
  - d. antigens.
8. One effect of stress on the body is to:
- a. suppress the immune system.
  - b. facilitate the immune system response.
  - c. increase disease resistance.
  - d. increase the growth of B and T lymphocytes.
9. Which of the following is evidence that, for some women, PMS is a social construction?
- a. PMS complaints vary with culture.
  - b. PMS complaints do not vary with any known biological differences among women.
  - c. Inactive placebos often provide as much relief from PMS as actual drugs.
  - d. All of the above provide evidence.
10. In response to uncontrollable shock, levels of stress hormones \_\_\_\_\_ and immune responses are \_\_\_\_\_.
- a. decrease; suppressed
  - b. increase; suppressed
  - c. decrease; increased
  - d. increase; increased
11. Allergic reactions and arthritis are caused by:
- a. an overreactive immune system.
  - b. an underreactive immune system.
  - c. the presence of B lymphocytes.
  - d. the presence of T lymphocytes.
12. Research on cancer patients reveals that:
- a. those who bottle up their emotions are less likely to survive than those who express them.
  - b. patients' attitudes can influence their rate of recovery.
  - c. participating in support groups may enhance immune responses.
  - d. all of the above are true.
13. The component of Type A behavior that is the most predictive of coronary disease is:
- a. time urgency.
  - b. competitiveness.
  - c. high motivation.
  - d. impatience.
  - e. anger.
14. Which of the following is true concerning smoking treatment programs?
- a. Most are effective in the long run.
  - b. Hypnosis is more effective than behavior modification.
  - c. Treatment programs are more effective with women than with men.
  - d. Most participants eventually resume smoking.
15. During biofeedback training:
- a. a subject is given sensory feedback for a subtle body response.
  - b. biological functions controlled by the autonomic nervous system may come under conscious control.
  - c. the accompanying relaxation is much the same as that produced by other, simpler methods of relaxation.
  - d. all of the above occur.
16. Research on obesity indicates that:
- a. pound for pound, fat tissue requires more calories to maintain than lean tissue.
  - b. once fat cells are acquired they are never lost, no matter how rigorously one diets.
  - c. one pound of weight is lost for every 3500-calorie reduction in diet.
  - d. compared to normal-weight persons, those who are obese secrete less insulin (which suppresses appetite) in response to external food cues.
17. The number of fat cells a person has is influenced by:
- a. genetic predisposition.
  - b. childhood eating patterns.
  - c. adulthood eating patterns.
  - d. all of the above.
18. Relaxation is the most effective technique for preventing:
- a. alcoholism.
  - b. a stressful environment.
  - c. smoking.
  - d. a repeat heart attack.
19. Which of the following was offered in the text as a reason people continue to smoke?
- a. Social pressure from peers is strong.
  - b. Cigarettes serve as powerful reinforcers.

- c. Regular use of nicotine impairs the brain's ability to produce neurotransmitters such as serotonin.
  - d. Most adults who smoke don't really want to quit.
20. The tendency to overeat when food is plentiful:
- a. is a recent phenomenon that is associated with the luxury of having ample food.
  - b. emerged in our prehistoric ancestors as an adaptive response to alternating periods of feast and famine.
  - c. is greater in developed, than in developing, societies.
  - d. is stronger in women than in men.
- a. Fat tissue has a lower metabolic rate than lean tissue.
  - b. Obese people are more responsive to external cues.
  - c. Obese people have a stronger insulin reaction to external cues.
  - d. Obese people tend to lack willpower.
2. After an initial rapid weight loss, a person on a diet loses weight much more slowly. This slow-down occurs because:
- a. most of the initial weight loss is simply water.
  - b. when a person diets, metabolism decreases.
  - c. people begin to "cheat" on their diets.
  - d. insulin levels tend to increase with reduced food intake.

### True-False Items

Indicate whether each statement is true or false by placing *T* or *F* in the blank next to the item.

- \_\_\_\_\_ 1. Most obese people who lose weight eventually gain it back.
  - \_\_\_\_\_ 2. Stressors tend to increase activity in the immune system and in this way make people more vulnerable to illness.
  - \_\_\_\_\_ 3. Events are most stressful when perceived as both negative and controllable.
  - \_\_\_\_\_ 4. Worldwide, per-person cigarette consumption is at an all-time low.
  - \_\_\_\_\_ 5. The single most important factor in causing obesity is heredity.
  - \_\_\_\_\_ 6. Obesity is often a sign of status and affluence in developing countries.
  - \_\_\_\_\_ 7. Optimists cope more successfully with stressful events than pessimists.
  - \_\_\_\_\_ 8. Type A persons are more physiologically reactive to stress than Type B persons.
  - \_\_\_\_\_ 9. Chronic stress can lead to ulcers, headaches, and hypertension.
  - \_\_\_\_\_ 10. People with few social and community ties are more likely to die prematurely than are those who have many social ties.
- 3. (Close-Up) Years after the Vietnam War, Randall continues to have haunting memories and nightmares of his experiences. Because he also is socially withdrawn and depressed, his psychologist believes he is suffering from:
    - a. burnout.
    - b. atherosclerosis.
    - c. learned helplessness.
    - d. post-traumatic stress disorder.
    - e. a psychophysiological illness.
  - 4. According to the text, the single most beneficial change in a person's behavior, from the point of view of health, would be to:
    - a. stop abusing alcohol and drugs.
    - b. begin a vigorous daily exercise regime.
    - c. go on a diet that is low in fat intake and high in fiber intake.
    - d. stop smoking.
  - 5. Ricardo has an important psychology exam in the afternoon. In an effort to improve his concentration and alertness, he orders a lunch that is high in \_\_\_\_\_ and low in \_\_\_\_\_.
    - a. carbohydrates; protein
    - b. carbohydrates; fat
    - c. protein; carbohydrates
    - d. protein; fat

### Thinking Critically About Chapter 17

Answer these questions the day before an exam as a final check on your understanding of the chapter's terms and concepts.

#### Multiple-Choice Questions

1. Which of the following is *not* necessarily a reason that obese people have trouble losing weight?

6. (Close-Up) Which of the following would be the *worst* piece of advice to offer to someone trying to lose weight?
- a. "In order to treat yourself to one 'normal' meal each day, eat very little until the evening meal."
  - b. "Reduce your consumption of saturated fats."
  - c. "Boost your metabolism by exercising regularly."

- d. "Without increasing total caloric intake, increase the relative proportion of carbohydrates in your diet."
7. Each semester, Bob does not start studying until just before midterms. Then he is forced to work around the clock until after final exams, which makes him sick, probably because he is in the \_\_\_\_\_ phase of the \_\_\_\_\_.
- alarm; post-traumatic stress syndrome
  - resistance; general adaptation syndrome
  - exhaustion; general adaptation syndrome
  - depletion; post-traumatic stress syndrome
8. Connie complains to the campus psychologist that she has too much stress in her life. The psychologist tells her that the level of stress people experience depends primarily on:
- how many activities they are trying to do at the same time.
  - how they appraise the events of life.
  - their physical hardiness.
  - how predictable stressful events are.
9. Calvin was a social worker who counseled troubled families. After several years of breaking up fights and removing abused children from their homes for their own protection, Calvin became so depressed and cynical about his job that he began finding it difficult to go to work. Calvin was probably suffering from:
- a Type A response.
  - the exhaustion phase of the GAS.
  - the alarm reaction of the GAS.
  - burnout.
10. Karen and Kyumi are taking the same course with different instructors. Karen's instructor schedules quizzes every Friday, while Kyumi's instructor gives the same number of quizzes on an unpredictable schedule. Assuming that their instructors are equally difficult, which student is probably under more stress?
- Karen
  - Kyumi
  - There should be no difference in their levels of stress.
  - It is impossible to predict stress levels in this situation.
11. Jill is an easygoing, noncompetitive person who is happy in her job and enjoys her leisure time. She would *probably* be classified as:
- Type A.
  - Type B.
  - Type C.
  - atherosclerotic.
12. A white blood cell that is formed in the thymus and that attacks cancer cells is:
- a macrophage.
  - a B lymphocyte.
  - a T lymphocyte.
  - any of the above.
13. When would you expect that your immune responses would be *weakest*?
- during summer vacation
  - during exam weeks
  - just after receiving good news
  - Immune activity would probably remain constant during these times.
14. Which of the following would be the *best* piece of advice to offer a person who is trying to minimize the adverse effects of stress on his or her health?
- "Avoid challenging situations that may prove stressful."
  - "Learn to play as hard as you work."
  - "Maintain a sense of control and a positive approach to life."
  - "Keep your emotional responses in check by keeping your feelings to yourself."
15. I am a widely abused drug that has a calming effect by stimulating the release of dopamine in the central nervous system. What am I?
- caffeine
  - alcohol
  - nicotine
  - cocaine
16. Kenny and his brother have nearly identical eating and exercise habits, yet Kenny is obese and his brother is very thin. The most likely explanation for the difference in their body weights is that they differ in:
- their set points.
  - their metabolic rates.
  - both a. and b.
  - none of the above.
17. Dr. Williams, who conducts smoking cessation clinics, explains to his clients that smoking is best understood as an interaction of psychological, biological, and social influences. Dr. Williams is working within the \_\_\_\_\_ perspective.
- behavioral medicine
  - behavioral
  - general adaptation syndrome
  - psychophysiological
18. Philip's physician prescribes a stress management program to help Philip control his ulcer. The physician has apparently diagnosed Philip's condition as a \_\_\_\_\_ illness, rather than a physical disorder.

- a. psychogenic
- b. hypochondriac
- c. psychophysiological
- d. biofeedback

19. Camelia is worried that her 12-year-old son might begin smoking because many of his classmates do. According to the text, Camelia can most effectively help her son not begin smoking by:
- a. telling him about the dangers of smoking.
  - b. telling him that if he begins smoking she will withhold his allowance.
  - c. using role-playing to teach him refusal techniques to counteract peer pressure to smoke.
  - d. insisting that he not associate with anyone who smokes.
20. You have just transferred to a new campus and find yourself in a potentially stressful environment. According to the text, which of the following would help you cope with the stress?
- a. believing that you have some control over your environment
  - b. being able to predict when stressful events will occur
  - c. feeling optimistic that you will eventually adjust to your new surroundings
  - d. All of the above would help.

### Essay Question

Discuss several factors that enhance a person's ability to cope with stress. (Use the space below to list the points you want to make and organize them. Then write the essay on a separate sheet of paper.)

## Key Terms

Using your own words, on a separate piece of paper write a brief definition or explanation of each of the following terms.

1. behavioral medicine
2. health psychology
3. stress
4. general adaptation syndrome (GAS)
5. burnout
6. coronary heart disease
7. Type A
8. Type B
9. psychophysiological illness
10. lymphocytes
11. aerobic exercise
12. biofeedback

## ANSWERS

### Guided Study

The following guidelines provide the main points that your answers should have touched upon.

1. Because half the mortality from the 10 leading causes of death can be traced to people's behavior, the interdisciplinary field of behavioral medicine emerged with the goal of identifying and modifying these behavioral sources of illness. Health psychology's major concerns include the following: how our emotions and responses to stress influence our risk of disease, how people decide they are sick and whether they will seek and follow treatment, what attitudes and behaviors help prevent illness and promote health and well-being, and how we can reduce or control stress.
2. Stress is the whole process by which we appraise and respond to events that threaten or challenge us. Stress triggers an outpouring of epinephrine, norepinephrine, and cortisol from nerve endings in the adrenal glands of the sympathetic nervous system. These stress hormones increase heart rate and respiration, divert blood to skeletal muscles, and release fat from the body's stores to prepare the body for "fight or flight." Hans Selye saw the body's reaction to stress as having three phases