

Behavior Modification

OBJECTIVES

Learn the effects of environment on human behavior.

Understand obstacles that hinder the ability to change behavior.

Understand the concepts of motivation and locus of control.

Identify the stages of change.

Become familiar with the processes of change.

Learn techniques that will facilitate the process of change.

Learn the role of goal setting in the process of change.

Be able to write specific objectives for behavioral change.

RESearch studies during the last three decades have convincingly documented the benefits of physical activity and healthy lifestyles. Ninety-seven percent of Americans accept that exercise is beneficial to health and see a need to incorporate it into their lives.¹ Seventy percent of new and returning exercisers, however, are at risk for early dropout.² And although the scientific evidence continues to mount each day and the data are impressive, most people are still unable to adhere to a healthy lifestyle program.

Let's look at an all-too-common occurrence on college campuses. Most students understand that they should be exercising. They contemplate enrolling in a fitness course. The motivating factor might be enhanced physical appearance, health benefits, or simply fulfillment of a college requirement. They sign up for the course, participate for a few months, finish the course—and stop exercising! A wide array of excuses are offered: too busy, no one to exercise with, already have the grade, inconvenient open-gym hours, or job conflicts. A few months later, they realize once again that exercise is vital and repeat the cycle (see Figure 2.1). The information in this book will be of little value to you if you are unable to abandon negative habits and adopt and maintain new, healthy behaviors. Before looking at physical fitness and wellness guidelines, you will need to take a critical look at your behaviors and lifestyle—and most likely make some permanent changes to promote your overall health and wellness.

The science of behavioral therapy has established that most of the behaviors we adopt are a product of our environment—the forces of social influences we encounter and the thought processes we go through. This environment includes family, friends, peers, homes, schools, workplaces, television, radio, and movies, as well as our communities, country, and culture in general.

Unfortunately, when it comes to fitness and wellness, we live in a “toxic environment.” From a young age, we are transported by parents, relatives, and friends who drive us nearly any place we need to go. We also watch them drive short distances to run errands. We see them take escalators and elevators and ride moving sidewalks at malls and airports. We notice that they use remote controls, pagers, and cellular phones. We observe as they stop at fast-food restaurants and pick up super-sized, calorie-dense, high-fat meals. They watch television and surf the Net for hours at a time. Some smoke, some drink heavily, and some have hard-drug addictions. Others engage in risky behaviors by not wearing seat belts, drinking and driving, and having unprotected sex. All of these unhealthy habits can be passed along, unquestioned, to the next generation.

FIGURE 2.1 Exercise/exercise dropout cycle.



Even modern-day architecture reinforces unhealthy behaviors. Elevators and escalators are often of the finest workmanship and located in convenient places. Many of our newest, showiest shopping centers and convention centers don't provide accessible stairwells, so people are all but forced to ride escalators. If they want to walk up the escalator, they can't because the people in front of them obstruct the way. Entrances to buildings provide electric sensors and automatic door openers. Without a second thought, people walk through automatic doors instead of taking the time to push a door open.

Walking, jogging, and bicycle trails are too sparse in our cities, further discouraging physical activity. Places for safe exercise are hard to find in many metropolitan areas, motivating many people to remain indoors during leisure hours for fear of endangering their personal safety and well-being.

In recent years, the food portion sizes have substantially increased at restaurants. Patrons consume huge amounts of food, almost as if it were the last meal they will ever have. They drink entire pitchers of soda pop or beer instead of the traditional 8-ounce cup size. Most restaurants are colorful, well-lit, and nicely decorated to enhance comfort and appetite and increase the length of stay to entice more eating.

All of these examples influence our thought process and hinder our ability to be physically active and adopt healthy behaviors. From childhood through young adulthood, we observe, we learn, we emulate, and gradually, without realizing it, we incorporate many of these unhealthy behaviors into our personal lifestyle.

Let's look at weight gain. Most people do not start life with a weight problem. By age 20, a man may weigh



Our environment is not conducive to a healthy, physically active lifestyle.

160 pounds. A few years later, his weight starts to climb and may reach 170 pounds. He now adapts and accepts 170 pounds as his weight. He may “go on a diet” but not make the necessary lifestyle changes. Gradually his weight climbs to 180, 190, 200 pounds. Although he may not like it and would like to weigh less, once again he adapts and accepts 200 pounds as his stable weight.

The time comes, usually around middle age, when most people want to make changes in their lives but find this difficult to accomplish, illustrating the adage that “old habits die hard.” Acquiring positive behaviors that will lead to better health and well-being is a long-lasting process and requires continual effort. Understanding why most people are unsuccessful at changing their behaviors and are unable to live a healthy lifestyle may increase your readiness and motivation for change. The next sections will examine barriers to change, what motivates people to change, the various stages of change, the process of change, techniques for change, and actions required to make permanent changes in behavior.

Barriers to Change

In spite of the best intentions, people make unhealthy choices daily. The most common reasons are

1. **Procrastination.** People seem to think that tomorrow, next week, or after the holiday is the best time to start change.

Tip to initiate change. Ask yourself: Why wait until tomorrow when you can start changing today? Lack of motivation is a key factor in procrastination (motivation is discussed on page 31).

2. **Preconditioned cultural beliefs.** If we accept the principle that we are a product of our environment, our cultural beliefs and our physical surroundings pose significant barriers to change. In Salzburg, Austria, people of both genders and all ages use bicycles as a primary mode of transportation. In the United States, few people other than children ride bicycles.

Tip to initiate change. Find a like-minded partner. In the pre-Columbian era, people thought the world was flat. Few dared to sail long distances for fear that they would fall off the edge. If your health and fitness are at stake, preconditioned cultural beliefs shouldn't keep you from making changes. Finding people who are willing to “sail” with you will help overcome this barrier.

3. **Gratification.** People prefer instant gratification to long-term benefits. Therefore, they will overeat (instant pleasure) instead of using self-restraint to eat moderately to prevent weight gain (long-term satisfaction). We love tanning (instant gratification) and avoid paying much attention to skin cancer (long-term consequence).

Tip to initiate change. Think ahead and ask yourself the following questions: How did you feel the



Salzburg, Austria:
Bicycles are the preferred mode
of transportation in this European city.



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last time you engaged in this behavior? How did it affect you? Did you really feel good about yourself or about the results? In retrospect, was it worth it?

4. **Risk complacency.** Consequences of unhealthy behaviors often don't manifest themselves until years later. People will tell themselves, "If I get heart disease, I'll deal with it then. For now, let me eat, drink, and be merry."

Tip to initiate change. Ask yourself these questions: How long do you want to live? How do you want to live the rest of your life, and what type of health do you want to have? What do you want to be able to do when you are 60, 70, or 80 years old?

5. **Complexity.** People think the world is too complicated, with too much to think about. If you are living the typical lifestyle, you may feel overwhelmed by everything that seems to be required to lead a healthy lifestyle, for example:

- ◆ Getting exercise
- ◆ Decreasing saturated fat intake
- ◆ Eating high-fiber meals and cutting total calories

- ◆ Controlling use of substances
- ◆ Managing stress
- ◆ Wearing seat belts
- ◆ Practicing safe sex
- ◆ Getting annual physicals, including blood tests, Pap smears, and so on
- ◆ Fostering spiritual, social, and emotional wellness

Tip to initiate change. Take it one step at a time. Work on only one or two behaviors at a time so the task at hand won't feel insurmountable.

6. **Indifference and helplessness.** A defeatist thought process often takes over, and we may believe that the way we live won't really affect our health, that we have no control over our health, or that our destiny is all in our genes (also see discussion of locus of control, page 31).

Tip to initiate change. As much as 84 percent of the leading causes of death in the United States are preventable. Realize that only you can take control over your personal health and lifestyle habits and affect the quality of your life. Implementing many of the behavioral modification strategies and programs outlined in this book will get you started on a wellness way of life.

7. **Rationalization.** Even though people are not practicing healthy behaviors, they often tell themselves that they do get sufficient exercise, that their diet is fine, that they have good solid relationships, or that they really don't smoke/drink/get high enough to affect their health.

Tip to initiate change. Learn to recognize when you're glossing over or minimizing a problem. You'll need to face the fact that you have a problem before you can really commit to change. Your health and your life are at stake. Monitoring lifestyle habits through daily logs and then analyzing the results can help you make necessary changes in self-defeating behaviors.

8. **Illusions of invincibility.** At times people believe that unhealthy behaviors will not harm them. Young adults often have the attitude that, "I can smoke now, and in a few years I'll quit before it causes any damage." Unfortunately, nicotine is one of the most addictive drugs known to us, so quitting smoking is not an easy task. Health problems may arise before you quit, and the risk of lung cancer lingers for years after you quit. Drinking and driving is another example. The feeling of "I'm in control" or "I can handle it" while under the influence is a deadly combination.

Others perceive low risk when engaging in negative behaviors with people they like (for example, sex



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Feelings of invincibility are a strong barrier to change that can bring about life-threatening consequences.

with someone you've recently met and feel attracted to) but perceive themselves at risk just by being in the same classroom with an HIV-infected person.

Tip to initiate change. No one is immune to sickness, disease, and tragedy. The younger you are when you implement a healthy lifestyle, the better your odds for a long and healthy life. Thus, initiating change right now will help you enjoy the best possible quality of life for as long as you live.

When health and appearance begin to deteriorate—usually around middle age—people seek out health care professionals in search of a “magic pill” to reverse and cure the many ills accumulated during years of abuse and overindulgence. The sooner we implement a healthy lifestyle program, the greater will be the health benefits and quality of life that lie ahead.



CRITICAL THINKING

What barriers to exercise do you encounter most frequently? How about barriers that keep you from managing your daily caloric intake?

Motivation and Locus of Control

Motivation is often the explanation given for why some people succeed and others do not. Although motivation comes from within, external factors trigger the inner desire to accomplish a given task. These external factors, then, control behavior.

When studying motivation, understanding **locus of control** is helpful. People who believe they have control over events in their lives are said to have an internal locus of control. People with an external locus of control believe that what happens to them is a result of chance or the environment and is unrelated to their behavior. People with an internal locus of control generally are healthier and have an easier time initiating and adhering to a wellness program than those who perceive that they have no control and think of themselves as powerless and vulnerable. The latter people are also at greater risk for illness. When illness does strike a person, establishing a sense of control is vital to the recovery.

Few people have either a completely external or a completely internal locus of control. They fall somewhere along a continuum. The more external one's locus of control, the greater the challenge to change and adhere to exercise and other healthy lifestyle behaviors. Fortunately, people can develop a more internal locus of control. Understanding that most events in life are not determined genetically or environmentally helps people pursue goals and gain control over their lives. Three impediments, however, can keep people from taking action: lack of competence, confidence, and motivation.³

1. **Problems of competence.** Lacking the skills to get a given task done leads to reduced competence. If your friends play basketball regularly but you don't know how to play, you might not be inclined to participate. The solution to this problem of competence is to master the skills you need to participate. Most people are not born with all-inclusive natural abilities, including playing sports.

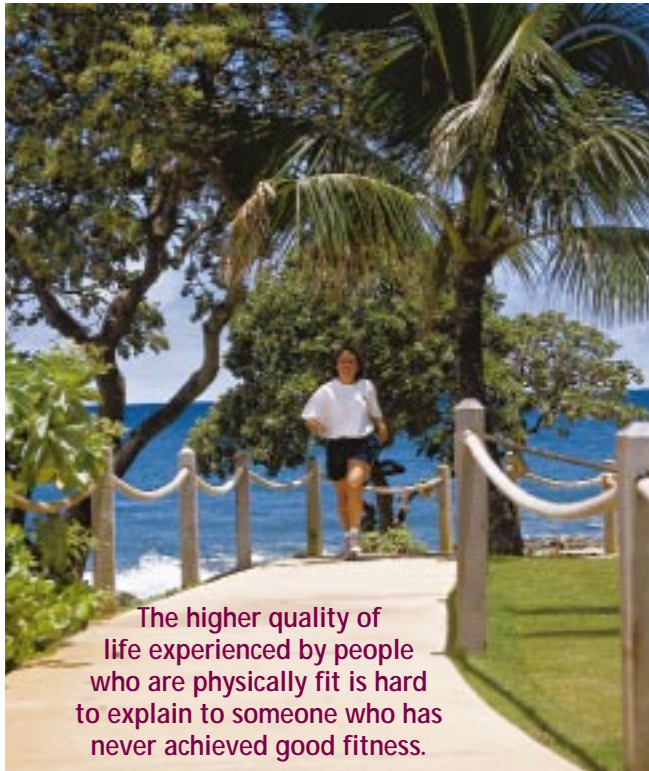
Another alternative is to select an activity in which you are skilled. It may not be basketball, but it well could be aerobics. Don't be afraid to try new activities, though. Similarly, if your body weight is a problem, you could learn to cook healthy/low-calorie meals. Try different recipes until you find foods that you like.

2. **Problems of confidence.** Problems with confidence arise when you have the skill but don't believe you can get it done. Fear and feelings of inadequacy often interfere with ability to perform the task. You shouldn't talk yourself out of something until you

KeyTerms

Motivation The desire and will to do something.

Locus of control The extent to which a person believes he or she can influence the external environment.



The higher quality of life experienced by people who are physically fit is hard to explain to someone who has never achieved good fitness.

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have given it a fair try. If the skills are there, the sky is the limit. Initially, try to visualize yourself doing the task and getting it done. Repeat this several times, then actually try it. You will surprise yourself.

Sometimes lack of confidence arises when the task seems insurmountable. In these situations, dividing a goal into smaller, more realistic objectives helps to accomplish the task. You may know how to swim, but may need to train for several weeks to swim a continuous mile. Set up your training program so you swim a little farther each day until you are able to swim the entire mile. If you don't meet your objective on a given day, try it again, reevaluate, cut back a little, and, most important, don't give up.

3. Problems of motivation. In problems of motivation, both the competence and the confidence are there, but individuals are unwilling to change because the reasons to change are not important to them. For example, people begin contemplating a smoking cessation program only when the reasons for quitting outweigh the reasons for smoking. The primary causes of unwillingness to change are lack of knowledge and lack of goals. Knowledge often determines goals, and goals determine motivation. How badly you want something dictates how hard you'll work at it.

Many people are unaware of the magnitude of the benefits of a wellness program. When it comes to a healthy lifestyle, however, you may not get a second

chance. A stroke, a heart attack, or cancer can have irreparable or fatal consequences. Greater understanding of what leads to disease may be all that is needed to initiate change.

Also, feeling physically fit is difficult to explain unless you have experienced it yourself. Feelings of fitness, self-esteem, confidence, health, and better quality of life cannot be conveyed to someone who is constrained by sedentary living. In a way, wellness is like reaching the top of a mountain. The quietness, the clean air, the lush vegetation, the flowing water in the river, the wildlife, and the majestic valley below are difficult to explain to someone who has spent a lifetime within city limits.



Prepare for a healthy change in lifestyle by completing the Behavior Change Plan on your CD-ROM.

Changing Behavior

Psychotherapy has been used successfully to help change behavior. The great majority of people, however, do not seek professional help. They usually attempt change by themselves with limited or no knowledge of the process itself.

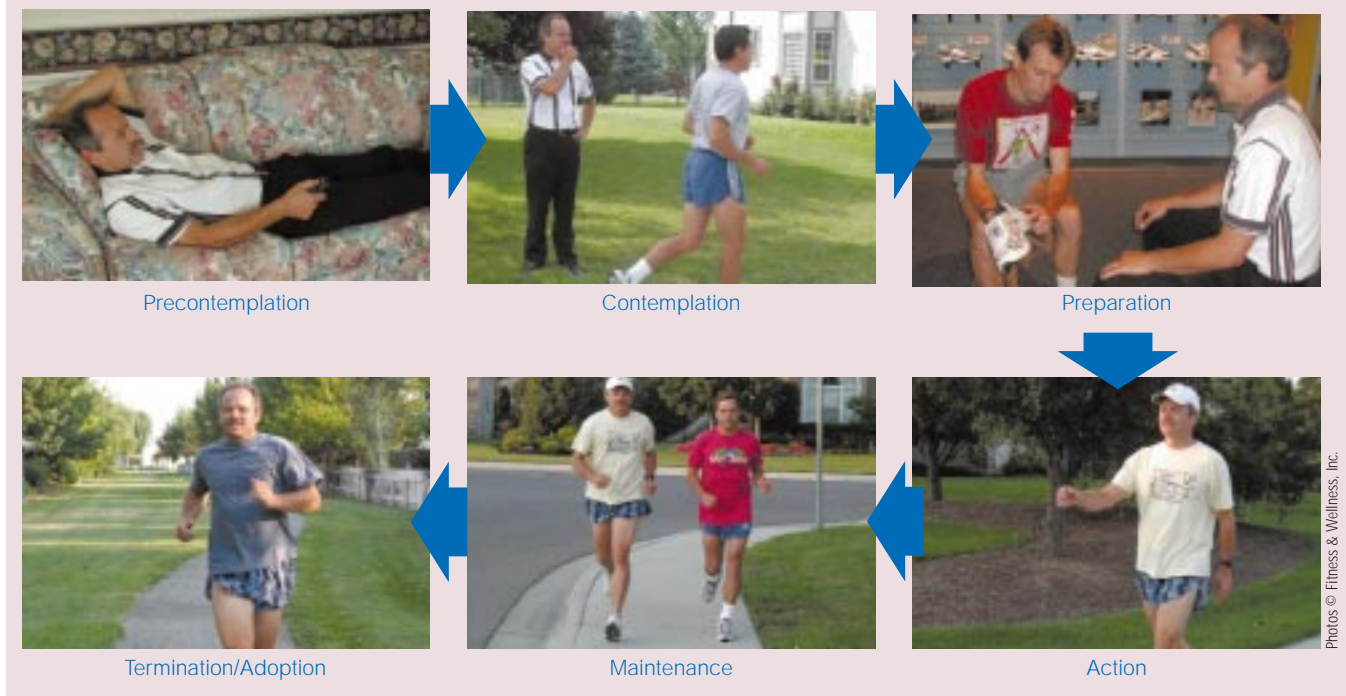
The simplest model of change is the two-stage model of unhealthy behavior and healthy behavior. This model states that either you do it or you don't. Most people who use this model attempt self-change but end up asking themselves why they're unsuccessful: They just can't do it (exercise, perhaps, or quitting cigarettes). Their intention to change may be good, but to accomplish it, they need knowledge about how to achieve change. The following discussion may help.

* The Transtheoretical Model

For most people, changing chronic/unhealthy behaviors to stable/healthy behaviors is a challenging process. Change usually does not happen all at once. It is a gradual process that involves several stages. To aid with the process of self-change, psychologists James Prochaska, John Norcross, and Carlo DiClemente developed the Transtheoretical Model of Stages of Change.⁴

The transtheoretical model identifies five stages in the process of willful change. These stages describe underlying processes that people go through to change most problem behaviors and adopt healthy behaviors, and understanding the five stages will help you use this process. A sixth stage (termination/adoption) has subsequently been added to this model. Most frequently, the model is used to change health-related behaviors such as physical inactivity, smoking, poor nutrition, weight problems, stress, and alcohol abuse.

FIGURE 2.2 Stages of change model.



The six stages of change are precontemplation, contemplation, preparation, action, maintenance, and termination/adoption (see Figure 2.2). After years of study, researchers indicate that applying specific behavioral-change processes during each stage of the model increases the success rate for change (specific processes for each stage are shown in Table 2.1, page 35). Understanding each stage of this model will help you determine where you are in relation to your personal healthy-lifestyle behaviors. It will also help you identify processes to make successful changes.

✨ Precontemplation

People in the **precontemplation stage** are not considering change or do not want to change a given behavior. They typically deny having a problem and have no intention of changing in the immediate future. These people are usually unaware or underaware of the problem. Other people around them, including family, friends, health care practitioners, and co-workers, however, identify the problem clearly. Precontemplators do not care about the problem behavior and may even avoid information and materials that address the issue. They tend to avoid free screenings and workshops that might help identify and change the problem, even if they receive financial compensation for attendance. These people frequently have an active resistance to change and seem

resigned to accepting the unhealthy behavior as their “fate.”

Precontemplators are the most difficult people to inspire toward behavioral change. Many think that change isn’t even a possibility. At this stage, knowledge is power. Educating them about the problem behavior is critical to help them start contemplating the process of change. The challenge is to find ways to help them realize that they are ultimately responsible for the consequences of their behavior. Typically, they initiate change only when people they respect or job requirements pressure them to do so.

✨ Contemplation

In the **contemplation stage**, people acknowledge that they have a problem and begin to seriously think about overcoming it. Although they are not quite ready for change, they are weighing the pros and cons of changing. Even though people may remain in this stage for years, in their minds they are planning to take some action within

KeyTerms

Precontemplation stage Stage of change in which people are unwilling to change behavior.

Contemplation stage Stage of change in which people are considering changing behavior in the next 6 months.

the next 6 months. Education and peer support remain valuable during this stage.

* Preparation

In the **preparation stage**, people are seriously considering change and planning to change a behavior within the next month. They are taking initial steps for change and may even try the new behavior for a short while, such as stopping smoking for a day or exercising a few times during the month. During this stage, people define a general goal for behavioral change (to quit smoking by the last day of the month) and write specific objectives to accomplish this goal (see the section titled “Goal Setting” later in this chapter). Continued peer and environmental support are helpful during the preparation stage.

* Action

This stage requires the greatest commitment of time and energy on the part of the individual. Here people are actively doing things to change or modify the problem behavior or to adopt a new health behavior. The **action stage** requires that the person follow the specific guidelines set forth for that behavior. For example, a person has actually stopped smoking completely, is exercising aerobically 3 times per week according to exercise prescription guidelines, or is maintaining a healthy diet. Relapse is common during this stage, and the individual may regress to previous stages. Once people maintain the action stage for 6 consecutive months, they move into the maintenance stage.

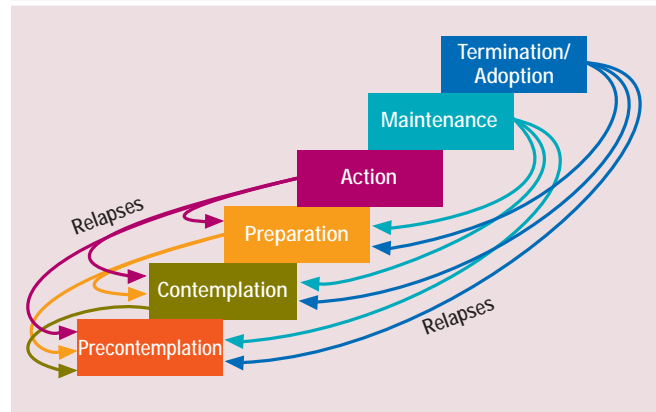
* Maintenance

During the **maintenance stage**, the person continues the new behavior for up to 5 years. The maintenance phase requires continued adherence to the specific guidelines that govern the behavior (such as complete smoking cessation, exercising aerobically 3 times per week, practicing proper stress management techniques). At this time the person works to reinforce the gains made through the various stages of change and strives to prevent lapses and relapse.

* Termination/Adoption

Once a behavior has been maintained for more than 5 years, a person is said to be in the **termination or adoption** phase and exits from the cycle of change without fear of relapse. In the case of negative behaviors that are terminated, the stage of change is referred to as termination. If a positive behavior has been successfully

FIGURE 2.3 Model of progression and relapse.



adopted for over 5 years, this stage is designated the adoption stage.

Many experts believe that, once an individual enters the termination/adoption stage, former addictions, problems, or lack of compliance with healthy behaviors no longer present an obstacle to the quest for wellness. The change has now become a part of one’s lifestyle. This phase is the ultimate goal for all people searching for a healthier lifestyle.

However, for addictive behaviors like alcoholism and hard drug use, many health care practitioners believe that the individual never enters the termination stage. Chemical dependency is so strong that most former alcoholics and hard-drug users must make a lifetime effort to prevent relapse. Similarly, some behavioral scientists suggest that the adoption stage may not be applicable to health behaviors like exercise and weight control, because the likelihood for relapse is always high.

Use the guidelines provided in Activity 2.1 (page 43) to determine where you stand with respect to behaviors you want to change or new ones you wish to adopt. As you follow the guidelines, you will realize that you might be at different stages for different behaviors. For instance, you may be in the preparation stage for aerobic exercise and smoking cessation, in the action stage for strength training, but only in the contemplation stage for a healthy diet. Realizing where you are with respect to different behaviors will help you design a better action plan for a healthy lifestyle.

* Relapse

After the precontemplation stage, **relapse** may occur at any level of the model. Even individuals in the maintenance and termination/adoption stages may regress to any of the first three stages of the model (see Figure 2.3). Relapse, however, does not mean failure. Failure comes

Table 2.1 Applicable Processes of Change During Each Stage of Change

Precontemplation	Contemplation	Preparation	Action	Maintenance	Termination/Adoption
Consciousness-raising	Consciousness-raising	Consciousness-raising			
Social liberation	Social liberation	Social liberation	Social liberation		
	Self-analysis	Self-analysis			
	Emotional arousal	Emotional arousal			
	Positive outlook	Positive outlook	Positive outlook		
		Commitment	Commitment	Commitment	Commitment
		Behavior analysis	Behavior analysis		
		Goal setting	Goal setting	Goal setting	
		Self-reevaluation	Self-reevaluation	Self-reevaluation	
			Countering	Countering	
			Monitoring	Monitoring	Monitoring
			Environment control	Environment control	Environment control
			Helping relationships	Helping relationships	Helping relationships
			Rewards	Rewards	Rewards

SOURCE: Adapted from J. O. Prochaska, J. C. Norcross, and C. C. DiClemente, *Changing for Good* (New York: William Morrow, 1994); and W. W. K. Hoeger and S. A. Hoeger, *Principles and Labs for Fitness & Wellness* (Belmont, CA: Wadsworth/Thomson Learning, 2004).

only to those who give up and don't use prior experiences as a building block for future success. The chances of moving back up to a higher stage of the model are far better for someone who has previously made it into one of those stages.

The Process of Change

Using the same plan for every individual who wishes to change a behavior will not work. With exercise, for instance, we provide different prescriptions to people of varying fitness levels (see Chapter 6). The same prescription would not provide optimal results for a person who has been inactive for 20 years, compared with one who already walks regularly 3 times each week. This principle also holds true for people who are attempting to change behaviors.

Timing is also important in the process of willful change. People respond more effectively to selected **processes of change** according to the stage of change they have reached at any given time.⁵ Thus, applying appropriate processes at each stage of change enhances the likelihood of changing behavior permanently. The following description of 14 of the most common processes of change will help you develop a personal plan for change. The respective stages of change where each process works best are summarized in Table 2.1.

* Consciousness-Raising

The first step in a **behavior modification** program is consciousness-raising. This process involves obtaining information about the problem so you can make a better decision about the problem behavior. For example, the problem could be physical inactivity. Learning about the

KeyTerms

Preparation stage Stage of change in which people are getting ready to make a change within the next month.

Action stage Stage of change in which people are actively changing a negative behavior or adopting a new, healthy behavior.

Maintenance stage Stage of change in which people maintain behavioral change for up to 5 years.

Termination/adoption stage Stage of change in which people have eliminated an undesirable behavior or maintained a positive behavior for over 5 years.

Relapse To slip or fall back into unhealthy behavior(s) or fail to maintain healthy behaviors.

Process of change Actions that help you achieve change in behavior.

Behavior modification The process used to permanently change negative behaviors in favor of positive behaviors that will lead to better health and well-being.

benefits of exercise or the difference in benefits between physical activity and exercise (see Chapter 1) can help you decide the type of fitness program (health or high fitness) that you want to pursue. It is also possible that you don't even know that a certain behavior is a problem, such as unawareness of saturated and total fat content in many fast-food items. This may continue from the precontemplation stage through the preparation stage.

* Social Liberation

Social liberation stresses external alternatives that make you aware of problem behaviors and contemplate change. Examples of social liberation include pedestrian-only traffic areas, nonsmoking areas, health-oriented cafeterias and restaurants, advocacy groups, civic organizations, policy interventions, and self-help groups. Social liberation often provides opportunities to get involved, stir up emotions, and enhance self-esteem—helping you gain confidence in your ability to change.

* Self-Analysis

The next process in modifying behavior is a decisive desire to do so, called self-analysis. If you have no interest in changing a behavior, you won't do it. You will remain a precontemplator or a contemplator. A person who has no intention of quitting smoking will not quit, regardless of what anyone may say or how strong the evidence in favor of quitting may be. In your self-analysis, you may want to prepare a list of reasons for continuing or discontinuing the behavior. When the reasons for changing outweigh the reasons for not changing, you are ready for the next stage—either the contemplation stage or the preparation stage.

* Emotional Arousal

In emotional arousal, a person experiences and expresses feelings about the problem and its solutions. Also referred to as “dramatic release,” this process often involves deep emotional experiences. Watching a loved one die from lung cancer caused by cigarette smoking may be all that is needed to make a person quit smoking. Other examples of emotional arousal are dramatizations of the consequences of drug use and abuse, a film about a person undergoing open-heart surgery, or books illustrating damage to body systems as a result of unhealthy behaviors.

* Positive Outlook

Having a positive outlook means taking an optimistic approach from the beginning and believing in yourself.



Behavior Modification Planning

Steps for Successful Behavior Modification

1. Identify the behavior to change (increase physical activity, stop overeating, quit smoking).
2. Acknowledge that there is a problem.
3. List advantages and disadvantages of changing the specified behavior.
4. Decide positively that you will change.
5. Identify your stage of change.
6. Set a realistic goal, completion date, and sign a behavioral contract.
7. Define your behavioral change plan: List processes of change, techniques of change, and objectives that will help you reach your goal.
8. Implement the behavioral change plan.
9. Monitor your progress toward the desired goal.
10. Periodically evaluate and reassess your goal.
11. Reward yourself when you achieve your goal.
12. Maintain the successful change for good.

Following the guidelines in this chapter will help you design a plan so you can work toward change and remain enthused about your progress. Also, you may become motivated by looking at the outcome—how much healthier you will be, how much better you will look, or how far you will be able to jog.

* Commitment

Upon making a decision to change, you now accept the responsibility to change and believe in your ability to do so. You've begun the preparation stage. During this step in the process, you may draw up a specific plan of action. Write down your goals and, preferably, share them with others. In essence you are signing a behavioral contract for change. You will be more likely to adhere to your program if others know you are committed to change.

* Behavior Analysis

Now determine the frequency, circumstances, and consequences of the behavior to be altered or implemented. If the desired outcome is to consume less saturated fat, you must first find out what foods in your diet are high in saturated fat, when you eat them, and when you don't eat them—all part of the preparation stage. Knowing when you don't eat them points to circumstances under which you exert control of your diet and will help as you set goals.

✨ Goal Setting

Goals motivate change in behavior. The stronger the goal or desire, the more motivated you'll be either to change unwanted behaviors or to implement new, healthy behaviors. The discussion on goal setting (page 38) will help you write goals and prepare an action plan to achieve those goals. This will aid with behavior modification.

✨ Self-Reevaluation

During this process, individuals analyze their feelings about a problem behavior. The pros and cons or advantages and disadvantages of a certain behavior can be reevaluated at this time. For example, you may decide that strength training will help you tone up and boost your metabolism, but implementing this change will require you to stop watching an hour of TV 3 times per week. If you presently have a weight problem and you are unable to lift certain objects around the house, you may feel good about weight loss and enhanced physical capacity as a result of a strength-training program. You may also visualize what it would be like if you were successful at changing.

✨ Countering

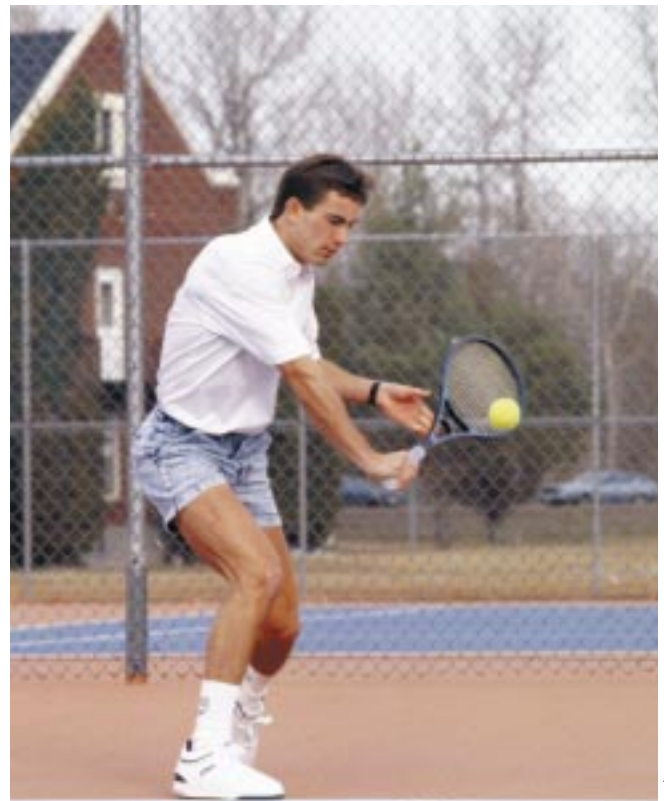
The process whereby you substitute healthy behaviors for a problem behavior, known as countering, is critical in changing behaviors as part of the action and maintenance stages. You need to replace unhealthy behaviors with new, healthy ones. You can use exercise to combat sedentary living, smoking, stress, or overeating. You may also use exercise, diet, yardwork, volunteer work, or reading to prevent overeating and achieve recommended body weight.

✨ Monitoring

During the action and maintenance stages, continuous behavior monitoring increases awareness of the desired outcome. Sometimes this process in itself is sufficient to cause change. For example, keeping track of daily food intake reveals sources of excessive fat in the diet. This can help you gradually cut down on or completely eliminate high-fat foods. If the goal is to increase daily intake of fruit and vegetables, keeping track of the number of servings consumed each day raises awareness and may help increase intake.

✨ Environment Control

In environment control, the person restructures the physical surroundings to avoid problem behaviors and



Countering: Substituting healthy behaviors for problem behaviors facilitates change.

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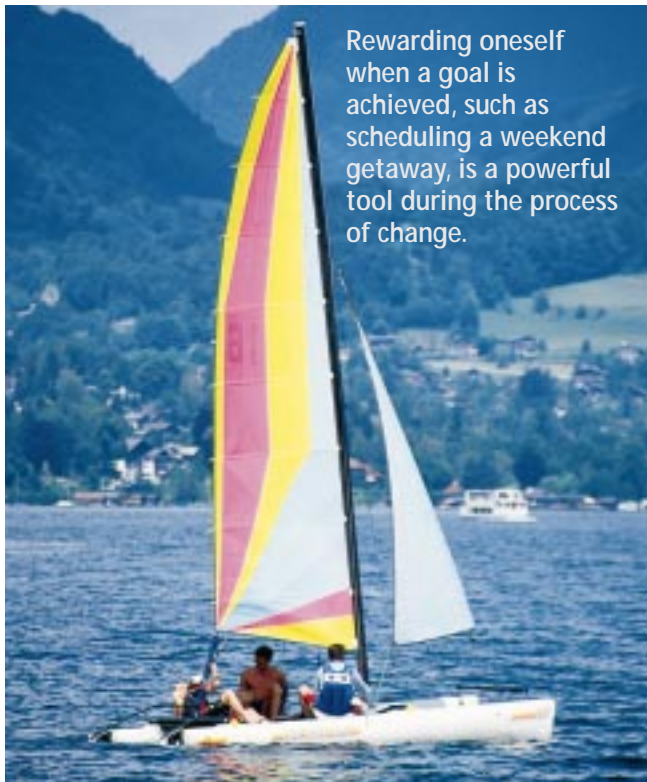
decrease temptations. If you don't buy alcohol, you can't drink any. If you shop on a full stomach, you can reduce impulse-buying of junk food.

Similarly, you can create an environment where exceptions become the norm and then the norm can flourish. Instead of bringing home cookies for snacks, bring fruit. Place notes to yourself on the refrigerator and pantry to avoid unnecessary snacking. Place baby carrots or sugarless gum where you used to place cigarettes. Post notes around the house to remind you of your exercise time. Leave exercise shoes and clothing by the entryway so they are visible as you walk into your home. Put an electric timer on the TV so it will shut off automatically at 7:00 PM. All of these tactics will be helpful throughout the action, maintenance, and termination/adoption stages.

✨ Helping Relationships

Surrounding yourself with people who will work toward a common goal with you or who care about you and will encourage you along the way will be helpful during the action, maintenance, and termination/adoption stages.

Attempting to quit smoking, for instance, is easier when a person is around others who are trying as well.



Rewarding oneself when a goal is achieved, such as scheduling a weekend getaway, is a powerful tool during the process of change.

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The person could also get help from friends who have quit already. Losing weight is difficult if meal planning and cooking is shared with roommates who enjoy foods that are high in fat and sweets. It can be even worse if roommates also have a weight problem and do not desire to lose weight.

Peer support is a strong incentive for behavioral change. During this process, the individual should avoid people who will not be supportive. Friends who have no desire to quit smoking or lose weight may tempt one to smoke or overeat and encourage relapse into unwanted behaviors. People who have achieved the same goal already may not be supportive either. For instance, someone may say, “I can do 6 consecutive miles.” Your response should be, “I’m proud that I can jog 3 consecutive miles.”

* Rewards

People tend to repeat behaviors that are rewarded and disregard those that are not rewarded or are punished. Rewarding oneself or being rewarded by others is a powerful tool during the process of change in all stages. If you have successfully cut down your caloric intake during the week, reward yourself by going to a show or buying a new pair of shoes. Do not reinforce yourself with destructive behaviors such as eating a high-fat/calorie-dense dinner. If you fail to change a desired behavior (or to implement a new one), you may want to put off buying those new shoes you had planned for that

week. When a positive behavior becomes habitual, give yourself an even better reward. Treat yourself to a week-end away from home or buy a new bicycle.

Techniques of Change

Not to be confused with the processes of change, within each process you can apply any number of **techniques of change** that help you through that particular process (see Table 2.2). For example, following dinner, people with a weight problem often can’t resist continuous snacking during the rest of the evening until it is time to retire for the night. Using the process of countering, you can use various techniques to avoid unnecessary snacking. Examples include: going for a walk, flossing and brushing your teeth right after dinner, going for a drive, playing the piano, going to a show, or going to bed earlier.

As you develop your behavior modification plan, you need to identify specific techniques that may work for you within each process of change. A list of techniques for each process is provided in Table 2.2. This is only a sample list; dozens of other techniques may be used as well. For example, Behavior Modification and Adherence to a Weight Management Program is found on page 134 (in Chapter 5), Getting Started and Adhering to a Lifetime Exercise Program is presented on page 175 (in Chapter 6), stress management techniques are provided in Chapter 12, and tips to help stop smoking on page 395 (in Chapter 13). Some of the techniques can also be used with more than one process: visualization, for example, is helpful in emotional arousal and self-reevaluation.

* Goal Setting

To initiate change, **goals** are essential. Goals motivate behavioral change and provide a plan of action. Goals are most effective when they are

1. Well planned. Only a well-conceived action plan will help you attain your goal. The items below (as well as others discussed in following chapters) will help you design your plan of action. You also should write specific **objectives** to help you reach each goal.

The specific objectives are the steps required to reach a goal. For example, a goal might be to achieve recommended body weight. Several specific objectives could be to (a) lose an average of 1 pound (or 1 fat percentage point) per week (b) monitor body weight before breakfast every morning (c) assess body composition every 2 weeks (d) limit fat intake to less than 25 percent of total calories (e) eliminate all pastries from the diet during this time, and

Table 2.2 Sample Techniques for Use With Processes of Change

Process	Techniques
Consciousness-Raising	Become aware that there is a problem, read educational materials about the problem behavior or about people who have overcome this same problem, find out about the benefits of changing the behavior, watch an instructional program on television, visit a therapist, talk and listen to others, ask questions, take a class.
Social Liberation	Seek out advocacy groups (Overeaters Anonymous, Alcoholics Anonymous), join a health club, buy a bike, join a neighborhood walking group, work in nonsmoking areas.
Self-Analysis	Question yourself on the problem behavior, express your feelings about it, become aware that there is a problem, analyze your values, list advantages and disadvantages of continuing (smoking) or not implementing a behavior (exercise), take a fitness test, do a nutrient analysis.
Emotional Arousal	Practice mental imagery of yourself going through the process of change, visualize yourself overcoming the problem behavior, do some role-playing in overcoming the behavior or practicing a new one, watch dramatizations (a movie) of the consequences or benefits of your actions, visit an auto salvage yard or a drug rehabilitation center.
Positive Outlook	Believe in yourself, know that you are capable, know that you are special, draw from previous personal successes.
Commitment	Just do it, set New Year's resolutions, sign a behavioral contract, set start and completion dates, tell others about your goals, work on your action plan.
Behavior Analysis	Prepare logs of circumstances that trigger or prevent a given behavior and look for patterns that prompt the behavior or cause you to relapse.
Goal Setting	Write goals and objectives; design a specific action plan.
Self-Reevaluation	Determine accomplishments and evaluate progress, rewrite goals and objectives, list pros and cons, weigh sacrifices (can't eat out with others) versus benefits (weight loss), visualize continued change, think before you act, learn from mistakes, and prepare new action plans accordingly.
Countering	Seek out alternatives: Stay busy, walk (don't drive), read a book (instead of snacking), attend alcohol-free socials, carry your own groceries, mow your yard, dance (don't eat), go to a movie (instead of smoking), practice stress management.
Monitoring	Use exercise logs (days exercised, sets and resistance used in strength training), keep journals, conduct nutrient analyses, count grams of fat, count number of consecutive days without smoking, list days and type of relaxation technique(s) used.
Environment Control	Rearrange your home (no TVs, ashtrays, large-sized cups), get rid of unhealthy items (cigarettes, junk food, alcohol), then avoid unhealthy places (bars, happy hour), avoid relationships that encourage problem behaviors, use reminders to control problem behaviors or encourage positive ones (post notes indicating "don't snack after dinner" or "lift weights at 8:00 PM"). Frequent healthy environments (a clean park, a health club, restaurants with low-fat/low-calorie/nutrient-dense menus, friends with goals similar to yours).
Helping Relationships	Associate with people who have and want to overcome the same problem, form or join self-help groups, join community programs specifically designed to deal with your problem.
Rewards	Go to a movie, buy a new outfit or shoes, buy a new bike, go on a weekend get-away, reassess your fitness level, use positive self-talk ("good job," "that felt good," "I did it," "I knew I'd make it," "I'm good at this").

- (f) exercise in the proper target zone for 45 minutes, 5 times per week.
2. Personalized. Goals that you set for yourself are more motivational than goals that someone else sets for you.
 3. Written. An unwritten goal is simply a wish. A written goal, in essence, becomes a contract with yourself. Show this goal to a friend or an instructor and

KeyTerms

Techniques of change Methods or procedures used during each process of change.

Goal The ultimate aim toward which effort is directed.

Objectives Steps required to reach a goal.

have him or her witness the contract you made with yourself by signing alongside your signature.

4. **Realistic.** Goals should be within reach. If you currently weigh 190 pounds and your target weight (at 22 percent body fat) is 140 pounds, setting a goal to lose 50 pounds in 2 months would be unsound, if not impossible. This program would not allow implementation of adequate behavior modification techniques or ensure weight maintenance at the target weight. Unattainable goals lead to discouragement and loss of interest.

At times problems arise, even with realistic goals. Try to anticipate potential difficulties as much as possible and plan for ways to deal with them. If your goal is to jog for 30 minutes on 6 consecutive days, what are the alternatives if the weather turns bad? Possible solutions are to jog in the rain, find an indoor track, jog at a different time of day when the weather improves, or participate in a different aerobic activity such as stationary cycling, swimming, or step aerobics.

5. **Embraced with positive thoughts.** Visualize and believe in your success. As difficult as some tasks may seem, where there's a will, there's a way. A plan of action, prepared according to the guidelines in this chapter, will help you achieve your goals.
6. **Short-term and long-term.** If the long-term goal is to attain recommended body weight and you are 50 pounds overweight, you might set a short-term goal of losing 10 pounds and write specific objectives to accomplish this goal. Then the immediate task will not seem as overwhelming and will be easier.
7. **Measurable.** Whenever possible, goals and objectives should be measurable. For example, "to lose weight" is not measurable. If the goal is to achieve recommended body weight, this implies lowering your body weight (fat) to the recommended percent body fat standard given in Table 4.9 (page 107). For a 19-year-old female, the high fitness recommended fat percent would be in the range of 17 to 22 percent.

To be more descriptive, the goal could be reworded to read "Reduce body weight to 22 percent body fat." Also note that all of the sample specific objectives a through f given in Item 1 above are measurable. For instance, you can figure out easily whether you are losing a pound or a percentage point per week; you can conduct a nutrient analysis to assess your average fat intake; and you can monitor your weekly exercise sessions to make sure you are meeting this specific objective.

8. **Time-specific.** A goal always should have a specific date set for completion. To simply state, "I will decrease body fat to 22 percent" is not time-specific. The chosen date should be realistic but not too distant in the future. With a deadline, a task is much easier to work toward.
9. **Monitored.** Monitoring your progress as you move toward a goal reinforces behavior. Keeping an exercise log or doing a body composition assessment periodically enables you to determine your progress at any given time.
10. **Evaluated.** Periodic reevaluations are vital for success. You may find that a goal is unreachable. If so, reassess the goal. On the other hand, if a goal is too easy, you may lose interest and stop working toward it. Once you achieve a goal, set a new one to improve upon or maintain what you have achieved. Goals keep you motivated.

Recognize that you will face obstacles, and you will not always meet your goals. Use your setbacks and learn from them. Rewrite your goal and create a plan that will help you get around self-defeating behaviors in the future.



CRITICAL THINKING

Your friend John is a 20-year-old student who is not physically active. Exercise has never been a part of his life, and it has not been a priority in his family. He has decided to start a jogging and strength-training course in 2 weeks. Can you identify his current stage of change and list processes and techniques of change that will help him maintain a regular exercise behavior?

Now that you have read this chapter, use Figure 2.4 and Activity 2.1, page 43, to identify two problem behaviors in your life. Activity 2.1 directs you to determine your stage of change for two behaviors according to six standard statements. Based on your selections, determine the stage of change classification according to the ratings provided in Table 2.3. Next, develop a behavior modification plan according to the processes and techniques for change that you have learned in this chapter. (Similar exercises to identify stages of change for other fitness and wellness behaviors will be provided in subsequent chapter Activities.)

FIGURE 2.4 Stage of change identification.

Please indicate which response most accurately describes your current _____ behavior (in the blank space identify the behavior: smoking, physical activity, stress, nutrition, weight control). Next, select the statement below (select only one) that best represents your current behavior pattern. To select the most appropriate statement, fill in the blank for one of the first three statements if your current behavior is a problem behavior. (For example, you may say, “I currently smoke and I do *not* intend to change in the foreseeable future,” or “I currently *do not exercise* but I am contemplating changing in the next 6 months.”) If you have already started to make changes, fill in the blank in one of the last three statements. (In this case, you may say: “I currently *eat a low-fat diet*, but I have done so only within the last 6 months,” or “I currently practice *adequate stress management techniques*, and I have done so for over 6 months.”) As you can see, you may use this form to identify your stage of change for any type of health-related behavior.

1. I currently _____, and I do not intend to change in the foreseeable future.
2. I currently _____, but I am contemplating changing in the next 6 months.
3. I currently _____ regularly, but I intend to change in the next month.
4. I currently _____, but I have done so only within the last 6 months.
5. I currently _____, and I have done so for more than 6 months.
6. I currently _____, and I have done so for more than 5 years.

Table 2.3 Stage of Change Classification

Selected Statements (see Figure 2.4 and Activity 2.1, page 43)	Classification
1	Precontemplation
2	Contemplation
3	Preparation
4	Action
5	Maintenance
6	Termination/Adoption



Transtheoretical Model

This site, from the University of South Florida's Department of Community and Family Health, describes the development of the transtheoretical model and features several useful print references.

http://www.med.usf.edu/~kmbrown/Stages_of_Change_Overview.htm

Behavior Change Theories

This very comprehensive site, by the Department of Health Promotion at California Polytechnic University at Pomona, describes various theories of behavioral change, including learning theories, transtheoretical model, health belief model,

relapse prevention model, reasoned action and planned behavior, social learning/social cognitive theory, and social support.

http://www.csupomona.edu/~jvgrizzell/best_practices/bcttheory.html

INTERACTIVE SITE

The Transtheoretical Model

This excellent site features self-assessment tools to help you determine what stage of change you are in, based on the transtheoretical model, for the following behaviors: smoking, exercise, eating and diet, alcohol and drug usage, and practice of safe sex (including condom use and HIV prevention).

http://www2.msstate.edu/~bhunt/Stages_of_Change_Theory/transtheoretical.html



Evaluate how well you understand the concepts presented in this chapter using the Assess your Knowledge and Practice Quizzes options on your Profile Plus CD-ROM.

Assess Your Knowledge

1. Most of the behaviors that people adopt in life are
 - a. a product of their environment.
 - b. learned early in childhood.
 - c. learned from parents.
 - d. genetically determined.
 - e. the result of peer pressure.
2. Instant gratification is
 - a. a barrier to change.
 - b. a factor that motivates change.
 - c. one of the six stages of change.
 - d. the end result of successful change.
 - e. a technique in the process of change.
3. The desire and will to do something is referred to as
 - a. invincibility.
 - b. confidence.
 - c. competence.
 - d. external locus of control.
 - e. motivation.
4. People who believe they have control over events in their lives
 - a. tend to rationalize their negative actions.
 - b. exhibit problems of competence.
 - c. often feel helpless over illness and disease.
 - d. have an internal locus of control.
 - e. often engage in risky lifestyle behaviors.
5. A person who is unwilling to change a negative behavior because the reasons for change are not important enough is said to have problems of
 - a. competence.
 - b. conduct.
 - c. motivation.
 - d. confidence.
 - e. risk complacency.
6. Which of the following is a stage of change in the trans-theoretical model?
 - a. recognition
 - b. motivation
 - c. relapse
 - d. preparation
 - e. goal setting
7. A precontemplator is a person who
 - a. has no desire to change a behavior.
 - b. is looking to make a change in the next 6 months.
 - c. is preparing for change in the next 30 days.
 - d. willingly adopts healthy behaviors.
 - e. is talking to a therapist to overcome a problem behavior.
8. An individual who is trying to stop smoking and has not smoked for 3 months is in the
 - a. maintenance stage.
 - b. action stage.
 - c. termination stage.
 - d. adoption stage.
 - e. evaluation stage.
9. The process of change where an individual obtains information to make a better decision about a problem behavior is known as
 - a. behavior analysis.
 - b. self-reevaluation.
 - c. commitment.
 - d. positive outlook.
 - e. consciousness-raising.
10. A goal is effective when it is
 - a. written.
 - b. measurable.
 - c. time-specific.
 - d. monitored.
 - e. all of the above.

Correct answers can be found on page 465.

ACTIVITY 2.1 Behavior Modification Plan

Name: _____ Date: _____

Course: _____ Section: _____ Gender: _____ Age: _____

I. Stages of Change Instructions

Please indicate which response most accurately describes your current _____ and _____ behaviors (in the blank spaces identify the behaviors: smoking, physical activity, stress, nutrition, weight control). Next, select one of the six statements below (select only one) that best represents your current behavior pattern for each. To select the most appropriate statement, fill in the blank for one of the first three statements if your current behavior is a problem behavior. For example, you may say:

“I currently smoke, and I do not intend to change in the foreseeable future” OR

“I currently do not exercise, but I am contemplating changing in the next 6 months.”

If you have already started to make changes, fill in the blank in one of the last three statements. In this case you may say:

“I currently eat a low-fat diet, but I have done so only within the last 6 months” OR

“I currently practice adequate stress management techniques, and I have done so for over 6 months.”

You may use this form to identify your stage of change for any type of health-related behavior. After identifying two problem behaviors, look up your stage of change for each one of these behaviors using the ratings provided in Table 2.3.

Behavior #1

1. I currently _____, and I do not intend to change in the foreseeable future.
2. I currently _____, but I am contemplating changing in the next 6 months.
3. I currently _____ regularly, but I intend to change in the next month.
4. I currently _____, but I have done so only within the last 6 months.
5. I currently _____, and I have done so for more than 6 months.
6. I currently _____, and I have done so for more than 5 years.

Stage of change: _____ (see stages listed in Table 2.3, page 41).

Behavior #2

1. I currently _____, and I do not intend to change in the foreseeable future.
2. I currently _____, but I am contemplating changing in the next 6 months.
3. I currently _____ regularly, but I intend to change in the next month.
4. I currently _____, but I have done so only within the last 6 months.
5. I currently _____, and I have done so for more than 6 months.
6. I currently _____, and I have done so for more than 5 years.

Stage of change: _____ (see stages listed in Table 2.3, page 41).

(continued)

ACTIVITY 2.1 Behavior Modification Plan (continued)

II. Processes of Change

According to your stage of change for the two behaviors identified above, list the processes of change that apply to each behavior (see Table 2.1, page 35).

Behavior #1:

Two horizontal lines for writing.

Behavior #2:

Two horizontal lines for writing.

III. Techniques for Change

List a minimum of three techniques that you will use with each process of change (see Table 2.2, page 39).

Behavior #1:

Three horizontal lines for writing.

Behavior #2

Three horizontal lines for writing.



Will you continue to use these techniques as a process of behavior modification in the future? Briefly, discuss the techniques that were most beneficial to you.

Multiple horizontal lines for writing.

Today's date: [] Completion Date: []

Signature: []