SOLUTIONS MANUAL

Lifetime Physical Fitness and Wellness

A Personalized Program
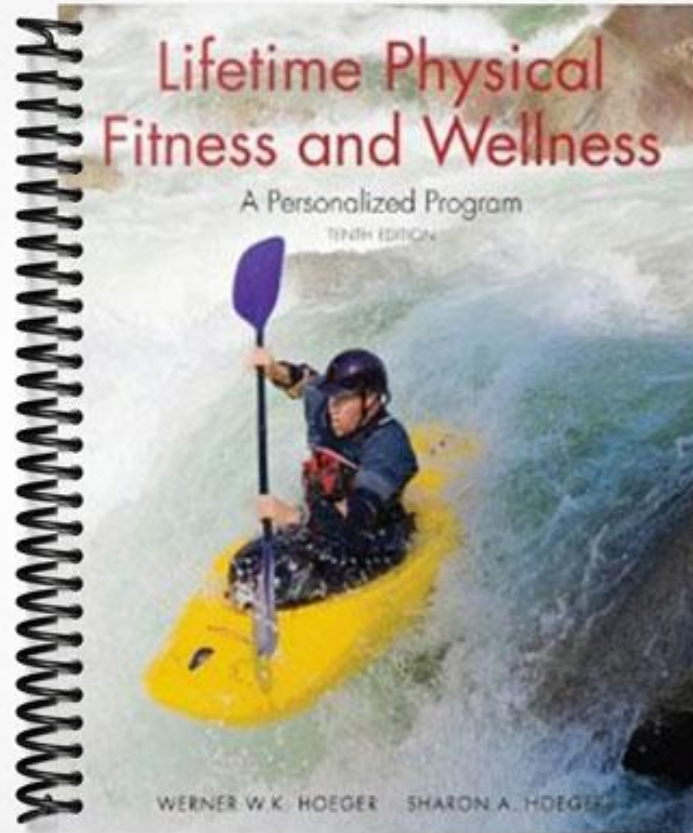
TENTH EDITION

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CHAPTER 2
BEHAVIOR MODIFICATION

OBJECTIVES
- Learn the effects of environment on human behavior.
- Understand obstacles that hinder our ability to change behavior.
- Explain the concepts of motivation and locus of control.
- Identify the stages of change.
- Describe the processes of change.
- Explain techniques that will facilitate the process of change.
- Describe the role of SMART goal setting in the process of change.
- Be able to write specific objectives for behavioral change.

EXPANDED CHAPTER OUTLINE

I.   INTRODUCTION (Figure 2.1)
     A. Convincing research results of the value of physical activity and healthy lifestyle are not enough to bring healthy lifestyle practice to action.
         1. 97% of Americans accept that exercise is beneficial and should be part of their lives.
         2. 70% of new and returning exercisers are at risk for early dropout.
     B. The individual must first take a critical look at personal behaviors and lifestyle with an open mind to change.

II.   LIVING IN A TOXIC HEALTH AND FITNESS ENVIRONMENT
     A. The science of **behavior therapy** states that most behaviors are learned from the social environment.
         1. Influences come from the home, community, country, and culture.
         2. Examples include family, friends, peers, schools, workplaces, television, radio, and movies.
     B. Our **social environment** of fitness and wellness can be referred-to as **toxic**.
         1. Children are delivered to places they could safely walk or bicycle.
         2. Adults become poor models for children. Adults:
             a. Drive short distances.
             b. Automatically decide to use elevators, escalators and moving sidewalks.
             c. Use remote controls, pagers, and cellular phones.
             d. Order super-sized, calorie-dense foods from fast food restaurants.
             e. Are sedentary during recreational time, such as using the computer or watching television.
             f. Smoke, drink, and abuse other drugs.
             g. Engage in risky behaviors, such as not wearing seat belts.

III.   ENVIRONMENTAL INFLUENCE ON PHYSICAL ACTIVITY
     A. Physical inactivity and diet are among the leading underlying causes of death in the US.
     B. To be considered active, health experts recommend the equivalent of 5-6 miles of walking (10,000-12,000 steps) each day.
     C. Modern-day conveniences are reducing daily caloric output.
         1. The automobile is used for short trips, instead of walking or riding a bike.
         2. Pedestrians are treated as "obstructions" if they are too near city streets.
         3. There are "automatic" features on automobiles, garage doors, car washes, and drive through windows.
         4. Elevators and escalators are easier to find and use than stairways.
         5. Food processors and riding lawn mowers reduce manual labor.

6. Instead of going to places of business the Internet is used to purchase products that are delivered to the door.
7. Cell phones are used to communicate around the world but also just a few feet away.
8. Television viewing has increased from 6 hours per day for the average household in 1970 to 8 hours per day. Food is consumed while watching television and television viewers are more likely to eat the unhealthy foods advertised in the commercials.
9. Exercise trails are sparse in our cities.
10. Workers becoming accustomed to commuting from "bedroom" communities.
11. Children walk or cycle less often because of distance, traffic, weather, perceived crime, and school policy.

D. Caloric intake is on the rise.
1. The USDA estimates that the average daily available food is 3,900 Calories per capita. This is 700 Calories higher than in the 1980s.
2. $33 billion is spent each year on advertising, often for processed foods.
3. Today, most leisure and even non-leisure activities are associated with eating.
4. Portion sizes and fat content of meals at home and in restaurants have increased.
5. Americans eat-out more than ever before and tend to eat the amounts they are served.
6. Foods are available almost anywhere at reasonable costs.
7. The 20 year trend of additional daily Calories: men 170, women 335.

E. Weight gain is accepted because everyone is doing it.
1. Habits are difficult to change.
2. Most individuals are ineffective in programming behavior change.

IV. BARRIERS TO CHANGE
A. The most common reasons people make unhealthy choices are:
1. **Procrastination**
   a. They think: "Tomorrow or sometime later will be a better time to change."
   b. Tip: Ask, "Why not change today?" and find the motivation to do so.
2. **Preconditioned Cultural Beliefs**
   a. They think: "I cannot change because I am merely a product of my environment."
   b. Tip: Find others to support you, who are not environmentally resigned and are willing to change.
3. **Gratification**
   a. They think: "Benefits later are not worth the discomfort now. Instant good feelings outweigh any long-term satisfaction."
   b. Tip: Ask, "What happened the last time I didn't consider the consequences? Is the immediate good feeling really worth it later? Is the long-term satisfaction worth suffering discomfort for a while?"
4. **Risk Complacency**
   a. They think: "I know it is bad behavior, but maybe I'm an exception. It hasn't caught up with me yet."
   b. Tip: Ask, "How well do I want to live my last decades of life?"
5. **Complexity**
   a. They think: "There are so many things to do to be healthy. I just can't do them all."
   b. Tip: Ask, "Can't I take them one at a time?"
6. **Indifference and Helplessness**
   a. They think: "No matter what I do, my genetics will work against me."
   b. Tip: Ask, "Didn't I just read that 84% of the risk for disease is based on everyday decisions?"
7. **Rationalization**
   a. They think: "I'm not as bad as Joe or Sally."
   b. Tip: Ask, "Do Joe's and Sally's problems affect mine?"
8. **Illusions of Invincibility**

a. They think: "It might be a bad choice but I can handle anything that comes my way."
b. Tip: Ask, "Will I be able to handle anything when I am older? Might it be better to maintain good health throughout life?"

B. The sooner a healthy lifestyle program is implemented, the greater will be the health benefits and quality of life ahead.

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

V. MOTIVATION AND LOCUS OF CONTROL
   A. **Motivation** is the desire and will to do something.
   B. **Locus of control** is the extent to which individuals believe they can influence the external environment.
      1. **Internal** locus of control results when individuals believe they have control over events in life. These people are usually:
         a. Healthier.
         b. More successful in adhering to exercise.
      2. **External** locus of control results when individuals do not believe their behavior will alter events in life; rather, events happen by chance or by some other external reason. These people:
         a. Usually feel powerless and vulnerable.
         b. Are at greater risk for illness and slower recovery from illness.
      3. Few people have completely external or internal locus of control.
         a. They can improve the amount of internal locus of control.
         b. Understanding that genetics and environment usually control a low percent of the potential outcome can help motivate change through a new perception of locus of control.
   C. Three Major Impediments to Improving Internal Locus of Control
      1. **Problems with competence**
         a. Identify and work to master the skills needed, such as taking lessons or getting into shape.
         b. Select environments and activities in which skill already exists.
      2. **Problems with confidence**
         a. Give the situation a fair try; put forth honest effort.
         b. Visualize success.
         c. Divide large or complex tasks into easier tasks to attain subunits.
      3. **Problems with motivation**
         a. Gain knowledge about why a change should be contemplated.
         b. Set goals after realizing what direction to take.

VI. CHANGING BEHAVIOR (Behavior Modification Planning box: Steps for Successful Behavior Modification)
   A. **Behavior modification** is the process to permanently change negative behaviors in favor of positive behaviors that will lead to better health and well-being.
   B. The first step in behavior change is to recognize there is a problem. Behavior change categories:
      1. Stopping a negative behavior.
      2. Preventing relapse of a negative behavior.
      3. Developing a positive behavior.
      4. Strengthening a positive behavior.
      5. Maintaining a positive behavior.
   C. The two-stage model is the simplest behavior change model.
      1. The change is made, or the change is not made.
      2. Individuals might lack the knowledge of how to make the change.

VII.   BEHAVIOR CHANGE THEORIES
    A. **Learning Theories**
        1. Most behaviors are learned and reinforced with multiple "small" cues.
        2. Change can occur if a few of the cues are modified a little at a time ("baby" steps).
    B. **Problem Solving**
        1. Behaviors result from decisions made.
        2. Change can occur if the individual understands why a different decision is desired and then has analyzed how to make the change.
    C. **Social Cognitive**
        1. Behaviors result from an interaction between the environment, the individual's **self efficacy** (a person's belief in the ability to perform the task at hand), and the characteristics of the behavior.
        2. Change can occur if the individual creates a reinforcing environment that encourages a new behavior. This can be done by raising self-efficacy, understanding how to change the specific behavior, and participating in a world that approves of this behavior.
    D. **Relapse Prevention**
        1. Change in behavior can be predicted and prevented.
        2. High-risk situations can be identified and preventative action can be planned.
    E. **Transtheoretical Model**
        1. Change in behavior is successfully willed through a predictable series of stages and processes.
        2. Progress can be identified by what stage and processes the individual is experiencing.

VIII.   THE TRANSTHEORETICAL MODEL
    A. The **Transtheoretical Model** illustrates 6 **Stages of Change** that usually occur in a successfully willed process of behavior change (Figure 2.2).
    B. Stage 1: **Precontemplation**
        1. Defined: The status of not considering or unwilling to change.
        2. Often the need to change is denied.
           a. People can be **unaware** of the problem.
           b. People can be **underaware** of the problem.
        3. Only education and/or job requirements will motivate change.
    C. Stage 2: **Contemplation**
        1. Defined: Acknowledgment that a behavior change is needed in the next six months.
        2. The pros and cons are weighed.
        3. Education and peer support are influential.
    D. Stage 3: **Preparation**
        1. Defined: Seriously considering and planning behavior change in the next month.
        2. Initial steps are taken, such as SMART goal setting and projecting required supportive behaviors.
        3. Continued education and peer support are effective.
    E. Stage 4: **Action**
        1. Defined: Following the prescription for change.
        2. Relapse is possible at any time.
        3. The stage is considered fully developed in six months.
    F. Stage 5: **Maintenance**
        1. Defined: The behavior change is continued for up to five years.
        2. Other behavior changes may also reinforce the original change.
    G. Stage 6: **Termination / Adoption**
        1. Defined: Maintaining the change for more than five years.
        2. The change is part of the individual's lifestyle; the behavior has been "transformed."
        3. Past obstacles do not pose a substantial relapse threat.
        4. By nature, some behavior changes do not allow termination/adoption, such as alcoholism, and possibly exercise and weight control.
    H. The stages for various behavior changes can be identified using Figure 2.5.
    I. **Relapse**

1. Defined: To slip into unhealthy behavior or to regress in the stages of the Transtheoretical Model (Figure 2.4).
2. Can happen at any time or stage, but is thought to be less likely from the termination/adoption stage for many behaviors.

IX. THE PROCESS OF CHANGE
   A. The **Transtheoretical Model** also includes **processes** that typically occur within each stage of change (Table 2.1).
      1. Each process does not operate in every stage.
      2. Most processes occur across contiguous stages.
      3. Each individual will need emphasis on a slightly different combination of processes as progress is made through the stages.
   B. **Consciousness-Raising**
      1. Defined: Obtaining information.
      2. The individual may remain unaware or underaware that change is needed.
   C. **Social Liberation**
      1. Defined: Societal examples of behavioral problems and solutions.
      2. Examples: Pedestrian walks for safety, no-smoking areas, civic organizations, and self-help groups.
   D. **Self-Analysis**
      1. Defined: A decisive desire to change an identified behavior.
      2. Results from a pro-con listing showing benefits outweigh costs.
   E. **Emotional Arousal**
      1. Defined: Experiencing and expressing feelings about the problem.
      2. Results from outcome dramatizations or real-life observations of other people in similar circumstances.
   F. **Positive Outlook**
      1. Defined: Taking an optimistic approach to change by believing in self.
      2. Results from personal experience and focusing on benefits of change.
   G. **Commitment**
      1. Defined: Accepting the responsibility to change.
      2. Goals and plans of action are identified.
      3. Accountability is established to reinforce resolve to change.
   H. **Behavior Analysis**
      1. Defined: Studying actual behaviors that should change and how they interact with circumstances or other behaviors.
      2. Examples: Finding out what foods consumed are high fat or logging the day to determine when uncontrolled eating occurs.
   I. **Goals**
      1. Defined: Verbalizing specific outcomes and action plans.
      2. Deadlines, measurement of behavior, and evaluation procedures are outlined.
   J. **Self-Reevaluation**
      1. Defined: Rechecking resolve to change.
      2. Pros and cons are rewritten and feelings are analyzed.
   K. **Countering**
      1. Defined: Substituting healthy behaviors for a problem behavior.
      2. Examples: Exercise, instead of sedentary living, smoking, stress, or overeating.
   L. **Monitoring**
      1. Defined: Record-keeping or other observation discipline to increase awareness of progress.
      2. Examples: Counting servings from each food group increases practice to behave according to plans.
   M. **Environmental Control**
      1. Defined: Restructuring the physical surroundings to avoid problem behavior and decrease temptations.

2. Examples: Buying healthier foods, not going to tempting locations, laying-out exercise clothes, setting a timer on the television.
   N. **Helping Relationships**
      1. Defined: Surrounding oneself with people who encourage the change.
      2. Example: Joining a support group of those who care about each other and are making (or have made) the same change.
   O. **Rewards**
      1. Defined: Use of positive reinforcement when goals are achieved.
      2. Reward objects can be gifts or experiences.

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 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?

   X.   TECHNIQUES OF CHANGE
         A. Defined: The specific ways processes are accomplished (Activity 2.1).
         B. Examples: Tables 2.2 & 2.3 give techniques and classifications for the processes.
         C. Goal Setting (Behavior Modification box: Setting SMART Goals)
            1. Essential for initiation of change.
            2. Goals motivate behavior change and provide a plan of action.
         D. **SMART Goals**: Goals are most effective if they are:
            1. **S**pecific
               a. Write down the goal exactly and in a positive manner.
               b. Example: "I will reduce my body fat to 20% (137 pounds) in 12 weeks.
               c. Now write the objectives (supportive behaviors) that help meet the goal.
            2. **M**easurable
               a. The behavior to change should have an index of evaluation.
               b. The behavior to change should be assessed on a time schedule.
            3. **A**cceptable
               a. Do I have the time, commitment, necessary skills?
               b. Can the roadblocks to change be reasonably overcome?
            4. **R**ealistic
               a. Goals should be within reach. Focus on short-term goals that move change closer to the ultimate long-term goal.
               b. Misconceptions must be corrected with education.
               c. Identify solutions to anticipated behavior change roadblocks.
               d. Monitor progress to reinforce behavior change.
            5. **T**ime-specific
               a. The goal should have a deadline.
               b. Other time-oriented aspects could also be included.
         E. Goal Evaluation
            1. Is the goal still feasible?
            2. Do any methods/programs need to be changed?
            3. Does periodic measurement motivate me to keep working on the change?

CHAPTER 2
BEHAVIOR MODIFICATION
CLASSROOM ACTIVITIES

CARTOONS

Use popular cartoons to illustrate behavior modification.

PROGRESS REPORTS

Give simple prospective and retrospective quizzes to keep the students reading and thinking.
1. Put multiple choice, true-false, or short answer questions on a half-sheet of paper.
2. This requires students to make a commitment to some controversial choices.
3. Use the questions as an outline for topics of the day.

THE TRANSTHEORETICAL MODEL EXAMPLE

1. Show the Stages (Figures 2.2-2.4) and the Processes (Table 2.1) simultaneously on the overhead projector (Acetates or PowerPoint).
2. Give an operating example. This can be described or a "guest" can pantomime it.
3. Then ask the students to determine how particular processes play-out within the stages.

COLLEGE LIFESTYLE CHANGE

1. Ask the students how college life is different from high school life.
2. What lifestyle choices are they now making differently?
3. Were the changes due to contemplated decisions or otherwise?

WHERE AM I NOW? (Figure 2.5)

1. Ask the students to think about a lifestyle-related issue or introduce one to which they all will respond.
2. For this issue, what stage and what processes of the Transtheoretical Model are they now engaging in?
3. What would cause them to change stages or processes?

WHAT IS THE BARRIER?

1. Ask the students to write down something they have desired to change.
2. What has been the reason for not making the change? Do the barriers relate to finances, attitudes, discipline, time, priorities, addictions, etc.?
3. After identifying the barrier, what would make it feasible to attempt a change?
4. Allow individuals to share their work.

PSYCHING THE PRECONTEMPLATORS

1. Define the condition of precontemplation, according to the Transtheoretical Model.
2. Ask what reasons precontemplators give for being in that state.
3. Two categories will arise: passive (being unaware of the need to change) and active (not caring to change).
4. Discuss how to "help' each type of precontemplator.

WHAT MAKES YOU CHANGE? (Frequently Asked Questions)

1. Ask the students brainstorm what makes people change.
2. Reasons will circle around the general area of discomforting feelings.
3. Explore that these discomforts can come from all areas of wellness (physical, emotional, intellectual, social, spiritual, environmental, or occupational).
4. Then ask if purposely changing one of the environments of wellness will help make change possible.
5. Give this example and then ask for more possibilities: to help stop smoking, avoiding smoking friends or making friends with those who don't smoke.
6. Reinforce that intentional efforts are required to change, not wishing or hoping things were different.

COUNTERING THE HABIT

1. Identify a theoretical problem habit that needs to be removed.
2. Have the students brainstorm ideas of what can substitute.
3. Rather than brainstorming, skits or posters can be assigned to illustrate these responses to change.

MAKE THE GOAL (Activity 2.1)

1. Ask the students to plan change of one life aspect.
2. Encourage them to write-down the specific goal with all the characteristics of effective goals.
3. Have them read the goal aloud. The other students are to ask questions regarding an aspect of the goal that is not clear, deadline & measurement oriented, or realistic.

MAKE THE REWARD

1. Ask why rewards are helpful and many times needed. Write the reasons on the board.
2. Ask the students to write down activities and purchases that would qualify as rewards.
3. Have them match these rewards to goals they have already set.
4. Ask them whether they are now more motivated to reach for the goals.

PRIORITIZE TIME TO SAY, "GOODBYE" TO OLD BEHAVIOR

1. The most important aspect of behavior change is to replace old behavior with the desired change, instead of merely trying to accomplishing more in the 24 hour day.
2. Prioritize the next 24 or 48 hours:
    a. What are the most important uses of your time down to the least important?
    b. Be honest and make sure eating or sleeping are not in the bottom position.
3. The best chance to begin and maintain a change is to acknowledge that:
    a. The time for new behavior is more important than the time for the old behavior in the first 24 and 48 hours.
    b. You will need to say "goodbye" to the old behavior time.
4. Is television at the bottom of your prioritized time and the new behavior is exercise?
    a. Then stop watching earlier in the evening, go to bed earlier, and exercise in the morning.
    b. Or, arrange to do something from another part of the day during TV time so exercise can happen in that part of the day.
5. If the 24th or 48th hour activity is less important than beginning and maintaining exercise, say, "goodbye" to the old behavior.