



Chapter preview

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THE EXERCISE PROFESSIONAL'S GUIDE TO PERSONAL TRAINING

A Client-centered Approach to
Inspire Active Lifestyles

AMERICAN COUNCIL ON EXERCISE®

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CHAPTER 3

Basics of Behavior Change

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Self-determination Theory

Transtheoretical Model of Behavior Change

Principles of Behavior Change

Operant Conditioning

Cognitions and Behavior

Physical Activity and Adherence

Personal Attributes

Environmental Factors

Physical-activity Factors

Program Design

Summary

LEARNING OBJECTIVES:

Upon completion of this chapter, the reader will be able to:

- Identify common behavioral theory models
- Explain self-determination theory and strategies that may be used to support its framework when working with clients
- Describe the transtheoretical model of behavior change and its component stages
- Implement basic strategies founded on common behavioral theory models to help clients adopt and maintain physical-activity behaviors
- Identify principles of behavior change and how they may affect clients who are embarking on a new physical-activity program for the first time or clients who are already engaged in a physically active lifestyle
- Implement basic strategies to decrease the likelihood of client dropout by taking into account adherence-related factors



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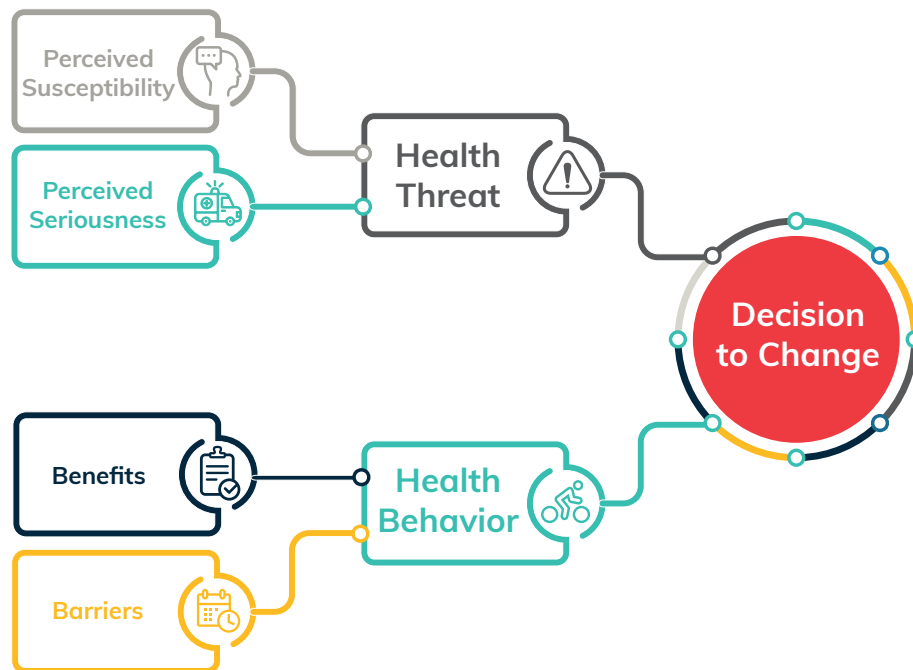
A variety of media to support and expand on the material in this text is provided to facilitate learning and best prepare you for the ACE Personal Trainer Certification exam and a career as a personal trainer.

to empower each client to adopt a life-long habit of regular physical activity. To provide guidance in supporting health behavior change, numerous models and theories have been developed. These research-supported frameworks examine various factors affecting health behaviors, including people's beliefs about their health, their beliefs about their ability to change, and their readiness to make a change. Each of the following models has relevance for personal trainers.

HEALTH BELIEF MODEL

The **health belief model** states that people's ideas and underlying emotions about illnesses, prevention, and treatments may influence health behaviors and decisions about changing (or not changing) health behaviors (Rosenstock, 1966). The outcome variable of interest is the decision to change, so the model is especially applicable to people in the early stages of change, where they are still weighing the pros and cons. The model states that at least four variables influence a person's decision to change. The first two involve a person's beliefs about a health threat. The second two reflect the person's beliefs about the health behavior that could reduce the threat (Sears, Brehm, & Bell, 2014) (Figure 3-1).

FIGURE 3-1
The health belief model



The belief in the health threat has two components, **perceived susceptibility** to an illness and **perceived seriousness** of the illness. Perceived susceptibility refers to people's perceptions of how likely they are to develop the illness. Perceived seriousness refers to people's perceptions regarding the short- and long-term severity of the illness. Health screenings that indicate a potential problem sometimes motivate behavior change because they may alter people's perceptions of susceptibility. For example, people who have not thought much about what they eat may become more aware of their eating habits if they hear their **blood pressure** is high. They may suddenly feel more susceptible to **hypertension** and feel motivated to prevent its development through beneficial health-behavior change, perhaps by improving their food choices and exercising.

The second set of variables relates to perceptions of the health behavior. People may perceive both benefits and barriers to taking action with a specific health behavior. Beliefs about

benefits may include how effective the person thinks a health behavior would be in preventing or treating an illness. Beliefs about barriers or drawbacks of a health behavior might include how difficult implementing the new behavior would be and the negative effects associated with doing so. If people feel susceptible to high blood pressure, but do not believe that limiting fast-food intake would help very much or be easy enough to do long-term, they would be unlikely to change the amount of fast food they eat. Addressing health beliefs is especially important for clients in the early stages of behavior change. The personal trainer should always discuss with clients their beliefs about health concerns and behavior change and correct misperceptions with accurate information. Good information will help clients weigh the pros and cons of behavior change and hopefully form intentions to modify their lifestyles.



APPLY WHAT YOU KNOW

The Health Belief Model in Action

When working with a client who has been recently diagnosed with having the **metabolic syndrome (MetS)**, a personal trainer can consider the constructs of the health belief model in evoking the client's motivation to change. For example, through a collaborative conversation, the personal trainer may reinforce the notion of perceived susceptibility by clarifying the client's understanding of his or her diagnosis, discussing the conditions that make up MetS, and exploring the client's family history, which can increase his or her risk of developing **cardiovascular disease** and **type 2 diabetes**.

To address perceived seriousness, the personal trainer can explore the client's understanding of the health risks associated with MetS, adding relevant information and correcting misunderstandings as appropriate. Then, together the client and personal trainer can explore lifestyle changes that can help to control and reduce the risk for negative health consequences, such as hypertension and **heart disease**. If the client is open to a discussion about nutrition and is seeking guidance about dietary strategies, the personal trainer can explain, with permission from the client, the benefits of a healthful diet, including increased consumption of fruits and vegetables and decreased sodium intake, for controlling blood pressure. The personal trainer can then prompt the client to consider ways in which he or she feels most inclined to go about making such dietary changes. Barriers to implementing dietary changes should be as low as possible, so the personal trainer should strategize with the client to devise realistic goals and plans. This discussion should not be overwhelming, but rather should empower the client, evoking newfound motivation to make a dietary change.

An interesting exception to the health belief model is that sometimes people coping with serious illnesses, such as cancer or heart disease, may be at greatest risk of not engaging in health-promoting behavior, despite feeling susceptible to a serious illness. This holds true even if they believe in the value of the health behavior. People facing such challenges may become psychologically and physically worn down by their disease,

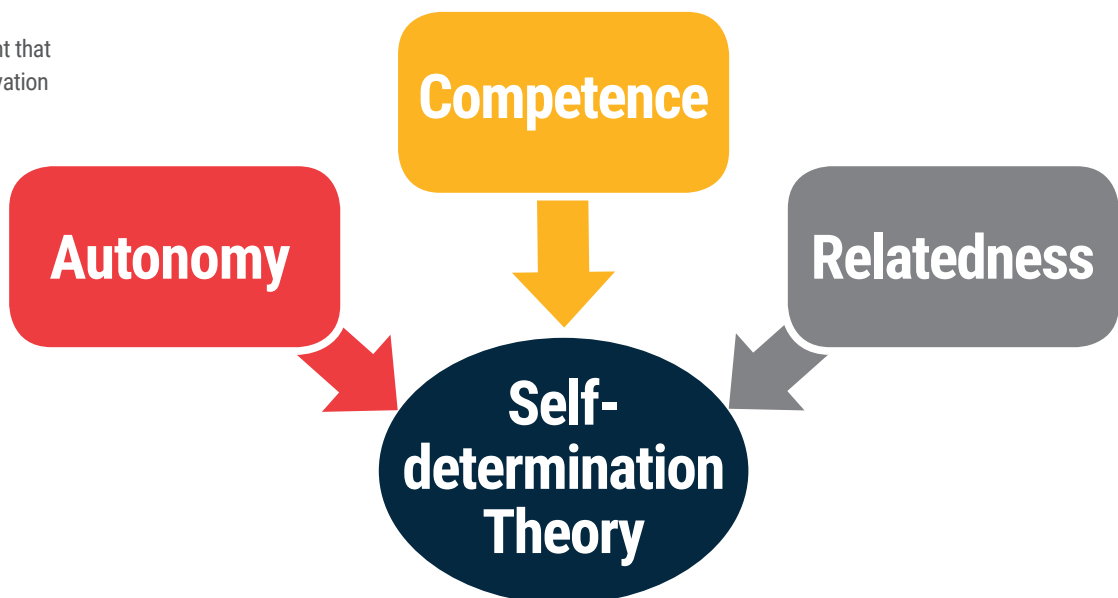
Most everyone falls somewhere on the continuum between controlled and autonomous motivation. Instead of feeling like they need to make their clients more intrinsically motivated, personal trainers may strive to enhance the feelings of enjoyment and accomplishment that come with program participation.

In their work in developing self-determination theory, researchers Ryan and Deci (2000) reported that people have innate psychological needs, and when those needs are met, the conditions are favorable for supporting intrinsic motivation. The three needs they identified are **competence**, autonomy, and **relatedness**. Competence relates to the self-perception that a person can successfully perform a task, which is enhanced when he or she receives positive performance **feedback** (see Chapter 4). Receiving negative feedback, on the other hand, diminishes the perception of competence and may thwart intrinsic motivation. Along with competence, a sense of autonomy is important for intrinsic motivation such that an individual must feel that his or her behavior is self-determined and not coerced or controlled. Lastly, social environments that promote relatedness, or a belongingness and connectedness with others, are contexts in which intrinsic motivation may flourish.

Personal trainers can create environments wherein their clients' basic psychological needs are met by (1) creating opportunities for mastery experiences through offering appropriately challenging exercises and consistent positive feedback (promoting competence), (2) including the client in aspects of goal setting and program design (promoting autonomy), and (3) encouraging a sense of camaraderie among the client and others in the fitness setting (promoting relatedness) (Figure 3-2). Encouraging client ownership and continued involvement in the exercise program design will further facilitate the development of intrinsic motivation by enhancing client self-sufficiency. Many personal trainers are afraid to teach their clients to be independent because they fear that their services will no longer be needed. In reality, failing to build client independence is related to less-motivated clients who may ultimately be more likely to drop out (Higgins et al., 2014).

FIGURE 3-2

Creating an environment that supports intrinsic motivation





Motivational Climate in the Exercise Setting

Research on motivational climate in the exercise setting indicates that an exerciser's self-determination for physical activity is low when motivated by external factors (e.g., to please others or gain a reward) and, conversely, is high when motivated by internal factors (e.g., enjoyment and self-care) (Ng et al., 2012). Further, it has been shown that supportive others, such as personal trainers, can play a critical role in fostering the development of increased self-determined motivation (Ryan & Deci, 2000).

Similar to how individuals' perceptions influence their belief about the actions they take for health, so too do perceptions about their environment affect the efforts they put forth in the exercise setting. Seminal research suggests that environments can be perceived by participants as either task-involving or ego-involving (Nicholls, 1984). Task-involving climates promote a focus on individual effort and improvement where everyone is made to feel valued and welcomed and cooperation is fostered among everyone in the setting. Ego-involving climates, on the other hand, highlight the most skilled or fit participants among a group and rivalry is encouraged to the point where members may feel embarrassed if they do not know how to use a piece of equipment or perform an exercise correctly. Perhaps not surprisingly, participants who exercise in task-involving climates report having higher self-esteem, feeling more competent and autonomous, feeling a greater sense of relatedness to others, and experiencing more enjoyment, versus ego-involving climates where they report greater physical exhaustion and higher anxiety (Reinboth & Duda, 2006; Vazou, Ntoumanis, & Duda, 2006; Reinboth & Duda, 2004). Research on a separate aspect of climate—the extent to which it is perceived as caring—has also shown psychological benefit. That is, a caring climate wherein physical-activity participants perceive the setting to be a safe and supportive environment that fosters a sense of belonging and where participants feel their exercise leaders have genuine concern for their well-being is associated with higher enjoyment, greater commitment to the activity, and higher empathic concern for others (Brown, Fry & Moore, 2017; Brown & Fry, 2014; Brown & Fry, 2013; Brown & Fry, 2011).

Social-support Strategies

How can **social support** be employed to help clients? One way is to suggest that they seek support from others on an ongoing basis. The following are social-support strategies personal trainers can suggest to clients:

- ▶ Find an enjoyable and reliable exercise partner. This strategy could be applied in personal-training sessions (if the personal trainer is comfortable and skilled at conducting sessions with more than one person) or for workouts when the client is not with the personal trainer. If partners are not readily available in the exercise setting, look to community agencies or programs offered by organizations such as churches, social groups, or universities.
- ▶ Ask friends and family members to be encouraging and positive about the exercise program. Find out if they have a similar interest in becoming more physically active and invite them to join in the program.
- ▶ Ask for reminders from friends and family members about physical-activity goals or appointments.
- ▶ Set up fun “contests” with a friend that base rewards on meeting process goals, such as meeting at the park for a scheduled walk 10 times without an absence. The main objective is to use accountability to someone else as a motivational tool for encouraging more consistent exercise participation, which may ultimately empower the client to become more accountable to him- or herself.
- ▶ Add a social element to the exercise program. For example, arrive at an exercise session a little early if it affords the opportunity to chat with other members.
- ▶ Find an enjoyable activity that is based on being physically active with a group or club such as dancing, bowling, or hiking.



THINK IT THROUGH

Promoting Social Connectedness

What strategies will you use to help clients connect with others to enhance their social relatedness and sense of belonging?

TRANSTHEORETICAL MODEL OF BEHAVIOR CHANGE

An important factor in the successful adoption of any exercise program is the client's readiness to make a change. This individual readiness for change is the focus of a well-accepted model examining health behaviors called the **transtheoretical model of behavior change (TTM)** (Prochaska & DiClemente, 1984). More commonly called the **stages-of-change model**, the TTM is important for personal trainers to understand when promoting the adoption of exercise programs. Not everyone is necessarily eager to begin exercising, which is an important concept to keep in mind when attempting to design and implement personalized exercise programs (Morgan, 2001; Marcus et al., 2000). Succeeding at making

a behavior change is not a simple task. To better delineate the process of starting and maintaining a behavior change, the TTM is separated into four components:

- ▶ Stages of change
- ▶ Processes of change
- ▶ Self-efficacy
- ▶ Decisional balance

Stages of Change

The first component of the TTM is made up of the five stages of behavioral change (Figure 3-3). These stages can be related to any health behavior, but in the physical-activity context the stages are as follows:

- ▶ The **precontemplation** stage is the stage during which people are physically inactive and are not even intending to begin an activity program. They do not see physical activity as relevant in their lives and may even discount the importance or practicality of being physically active.
- ▶ The **contemplation** stage consists of people who are still inactive but are thinking about becoming more active in the near future (within the next six months). They are starting to consider physical activity as important and have begun to identify the implications of being inactive. However, they are ambivalent about change and are still weighing the pros and cons of becoming physically active.

FIGURE 3-3
Stages of behavior
change



- ▶ The **preparation** stage is marked by some engagement in physical activity, as individuals are mentally and physically preparing to adopt an activity program. Activity during the preparation stage may be a sporadic walk, or even a periodic visit to the gym, but it is inconsistent. People in the preparation stage are ready to adopt and live an active lifestyle.
- ▶ The **action** stage is comprised of people who are engaging in regular physical activity but have been doing so for less than six months.
- ▶ The **maintenance** stage is marked by regular physical-activity participation for longer than six months.

Processes of Change

The second component of the TTM is likely the most important for personal trainers to understand, as it entails the processes of change that people use to move through the stages. Each stage transition has a unique set of processes and is based on specific individual decisions and mental states, including individual readiness and motivation. In reality, there is no established “correct” way to progress through the stages of change, nor is it a linear process. For example, individuals may vacillate between precontemplation and contemplation for years. Further, when a client moves from one stage to the next is not always clear. Personal trainers may gauge generally where a client is on the behavior-change continuum and then use the interventions specified in Table 3-1 to help him or her advance to the next stage. By asking clients **open-ended questions** (questions that cannot be answered with only a few words, or a “yes” or “no”) and listening to their answers

TABLE 3-1

The Stages of Behavioral Change

Stage	Traits	Goals	Strategies
Precontemplation	<ul style="list-style-type: none"> ▶ Unaware or under-aware of the problem, or believe that it cannot be solved 	<ul style="list-style-type: none"> ▶ Increase awareness of the risks of maintaining the status quo and of the benefits of making a change ▶ Focus on addressing something relevant to them ▶ Have them start thinking about change 	<ul style="list-style-type: none"> ▶ Validate lack of readiness to change and clarify that this decision is theirs ▶ Encourage reevaluation of current behavior and self-exploration, while not taking action ▶ Explain and personalize the inherent risks ▶ Utilize general sources, including media, Internet, and brochures, to increase awareness ▶ Explore the client’s personal values
Contemplation	<ul style="list-style-type: none"> ▶ Aware of the problem and weighing the benefits versus risks of change ▶ Have little understanding of how to go about changing 	<ul style="list-style-type: none"> ▶ Collaboratively explore available options ▶ Support cues to action and provide basic structured guidance upon request from the client and with permission 	<ul style="list-style-type: none"> ▶ Validate lack of readiness to change and clarify that this decision is theirs ▶ Encourage evaluation of the pros and cons of making a change ▶ Identify and promote new, positive outcome expectations and boost self-confidence

Continued on the next page

TABLE 3-1 (continued)

Stage	Traits	Goals	Strategies
Preparation	<ul style="list-style-type: none"> ▶ Seeking opportunities to engage in the target behavior 	<ul style="list-style-type: none"> ▶ Co-create an action plan with frequent positive feedback and reinforcements on their progress 	<ul style="list-style-type: none"> ▶ Verify that the individual has the underlying skills for behavior change and encourage small steps toward building self-efficacy ▶ Identify and assist with problem-solving obstacles ▶ Assist the client in identifying social support and establishing goals
Action	<ul style="list-style-type: none"> ▶ Desire for opportunities to maintain activities ▶ Changing beliefs and attitudes ▶ High risk for lapses or returns to undesirable behavior 	<ul style="list-style-type: none"> ▶ Establish the new behavior as a habit through motivation and adherence to the desired behavior 	<ul style="list-style-type: none"> ▶ Use behavior-modification strategies ▶ Empower clients to restructure cues and social support toward building long-term change ▶ Increase awareness of inevitable lapses and bolster self-efficacy in coping with lapses ▶ Support clients in establishing systems of accountability and self-monitoring
Maintenance	<ul style="list-style-type: none"> ▶ Empowered, but desire a means to maintain adherence ▶ Good capability to deal with lapses 	<ul style="list-style-type: none"> ▶ Maintain support systems ▶ Maintain interest and avoid boredom or burnout 	<ul style="list-style-type: none"> ▶ Reevaluate strategies currently in effect ▶ Plan for contingencies with support systems, although this may no longer be needed ▶ Reinforce the need for a transition from external to internal rewards ▶ Plan for potential lapses ▶ Encourage reevaluation of goals and action plans as needed

(see “Motivational Interviewing” on page 107), a personal trainer may identify the current stage of change and tailor his or her approach accordingly.

It is important to understand the processes behind clients’ desire to change and to maintain change. This necessitates being aware that people rely on different **cognitions** and strategies based on the specific stage they are in to move forward and progress through the stages of change. The processes presented in Table 3-2 can be categorized as either **cognitive** processes (which result in new ways of thinking that reinforce motivation to change) or behavioral processes (which support the behavior-change process), both of which influence an individual’s progress through the stages of change (Sears, Brehm, & Bell, 2014).

Cognitive processes result in new ways of thinking and reinforce a client’s motivation to change. Some examples of clients’ cognitive processes include:

- ▶ Receiving information on the benefits of changing a specific behavior (e.g., physical activity can be good for mental health, not just weight loss)
- ▶ Having an emotional change of heart to ignite a drive for change (e.g., being influenced by a close relative with cardiovascular disease to reevaluate one’s own dietary habits)



The Healthy Eating Contemplator

A client you have been working with for the past eight months is now in the maintenance stage of change for participating in regular physical activity. While she has been successful with implementing and adhering to an exercise program that includes meeting with you twice per week, attending one group exercise class per week, and accumulating 7,000 steps five days per week, she mentions to you that she is not making any changes to improve her nutrition. Also, she makes it clear that she understands the importance of eating a healthier diet but is not planning on making a change right now, though she does intend to do so within the next six months.

ACE → ABC APPROACH

The following is an example of how the ACE ABC Approach can be used to work with clients who may be in the contemplation stage of change for a health-related goal.

Ask: Asking powerful open-ended questions to find out what eating a healthier diet means to the client will spark a discussion about client expectations and food preferences.

Personal Trainer: You mentioned being interested in eating a healthier diet. What does eating healthier mean to you?

Client: I have not put a lot of thought into the specifics yet, but I know the amount of fast food, soda, and candy I eat throughout the week cannot be good for me and is not helping me with my overall goals of wanting to lose weight and improve my fitness.

Break down barriers: At this point in the conversation, more open-ended questions can be used to discover what potential obstacles may get in the way of working toward the goal. The following questions can be used to prompt the client to share more about what may hold her back from making dietary changes.

Personal Trainer: The amount of fast food and sugary foods and beverages you eat is a concern for you. Have you tried adopting healthier eating habits in the past? How were you able to be successful and what, if anything, prevented you from reaching your goals?

Client: Yes. The amount of fast food and unhealthy snacking I am doing is a concern for me, and I see how it is getting in the way of my goals. I have made many attempts at eating better over the years and have been successful with planning out my meals and snacks, but only for a short period before I am right back to eating out and refilling my snack drawer at work with unhealthy foods. Being busy at work, feeling stressed, and not knowing enough about cooking seems to hold me back. Planning ahead is one thing that helps me, but I don't have enough time to get serious about my nutrition right now.