How Personal Trainers Can Use Self-Efficacy Theory to Enhance Exercise Behavior in Beginning Exercisers

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SUMMARY

Self-efficacy is an important determinant of one’s behavior and has been positively correlated with increased exercise success as defined by increased exercise adherence, increased levels of general fitness, and increased achievement of specific personal fitness goals. Strength and conditioning specialists and personal trainers will benefit from understanding the concept of self-efficacy and its main tenants. Personal training clients and athletes can benefit from a personal trainer’s or strength and conditioning specialist’s implementation of strategies that enhance self-efficacy through personal accomplishment, vicarious experience, verbal persuasion, and physiological states.

Personal trainers and certified strength and conditioning specialists have the ability to connect with and motivate clients and athletes, which can be a large factor in exercise success. Although the Surgeon General of the United States has concluded that major health benefits can be reaped with moderate amounts of exercise done regularly or daily (8), 60% of American adults are not physically active on a consistent basis and 25% of American adults are not active at all (8). Within people who begin an exercise program, there is a 50% dropout rate within the first 6 months (10). The research clearly shows that the concept of self-efficacy, a central idea within the social cognitive theory of Bandura (3), is an important factor within exercise behavior (23). Increasing self-efficacy can help exercisers decrease dropout rates, improve levels of general fitness, and increase specific goal achievement. According to Poag-DuCharme and Brawley (23, p. 191), “self-efficacy should be considered a consistent and fundamental component for the prediction of exercise behavior and interventions designed to influence physical activity”.

Because of self-efficacy’s dual role as a predictor and an outcome of exercise, self-efficacy theory has valuable implications for personal fitness professionals. Because research demonstrates that various strategies such as goal setting and behavioral monitoring are able to improve self-efficacy (27), fitness professionals can actively use strategies to increase self-efficacy when trying to improve their clients’ exercise success.

UNDERSTANDING THE CONCEPT OF SELF-EFFICACY

Bandura (2,5) has defined self-efficacy as one’s confidence in their own ability to develop strategies and complete tasks necessary to be successful in various endeavors. Self-efficacy is an individual’s belief about their capabilities. According to Bandura (3), self-efficacy affects thought patterns that can aid or hinder the individual. A person with high self-efficacy within exercise will feel that he or she has the ability to be successful in exercise-related activities. Fitness professionals will help clients to be more successful if they can guide clients to higher levels of self-efficacy. Bandura (1) proposed that self-efficacy is formed and affected by 4 main sources of information: personal

KEY WORDS:

self-efficacy theory; self-efficacy theory and exercise; increasing self-efficacy; exercise adherence and self-efficacy; self-efficacy and personal training
accomplishment, vicarious experience, verbal persuasion, and physiological states. Mastery experience, the previous personal accomplishments and successes that one has had in similar domains, is the most powerful source of self-efficacy. Vicarious experience, the second source of self-efficacy, can be defined as the situation where someone increases their own self-belief as they watch others who are similar to themselves achieve success in a certain domain (i.e., “if they can do it, I can do it too”). Verbal persuasion, the third source of self-efficacy, defines the situation where one is led, through feedback and verbal cues, to believe that they can be successful in a specific domain. Finally, physiological states, the fourth source of self-efficacy, is defined as how one’s physiological state and their interpretation of that state can affect whether an experience becomes empowering or disempowering for that person. If people have positive feelings in each of these four factors, the benefits will be additive and self-efficacy will tend to be higher. Negative feelings in any factor, including personal accomplishment, vicarious experience, verbal persuasion, and physiological states, will lower one’s self-efficacy (9).

Importantly, self-efficacy is specific to individual tasks and situations, rather than general for all situations (25). The transferability of self-efficacy from one domain to another depends on how similar the two domains are (17). For example, if someone has high self-efficacy in the domain of sports, it is likely that the person may also have high self-efficacy within a similar domain, such as exercise. However, there would be less transfer of efficacy to a domain that is less similar, such as public speaking. The issue of transferability is one that fitness professionals should consider when aiming to improve clients’ self-efficacy.

According to Bandura (6), self-efficacy impacts activity choices, effort of intensity at a task, and persistence when facing obstacles. For example, if someone has low self-efficacy within exercise, that person will more likely avoid exercise. If they do exercise, they will likely pick forms of exercise that do not seem challenging. When obstacles do emerge, the person with lower self-efficacy will give up before the person with higher self-efficacy. On the other hand, someone with high self-efficacy will put greater effort into a task and be more persistent when obstacles occur (4). This difference between people who have low self-efficacy within exercise and high self-efficacy within exercise is an important distinction strength and conditioning specialists and personal trainers should consider when constructing exercise programs and coaching clients.

**HOW SELF-EFFICACY IMPACTS EXERCISE BEHAVIOR**

Self-efficacy has been found to have a strong positive correlation with vigorous physical activity. In a survey of 2,053 randomly sampled adults in San Diego, California, self-efficacy was found to be the strongest correlate to vigorous exercise (26). Poag and McAuley (22) found that for any given exercise intensity, people with higher self-efficacy had a lower perceived exertion during the exercise. In their study, which included 67 adult women, exercise efficacy accounted for 11.1% of the variance in women's perceived exertion. This research has direct consequences for health and fitness professionals trying to promote physical fitness and exercise adherence because effort and persistence are necessary factors in having a successful exercise program.

Another study by McAuley (18) examined the correlation between exercise and self-efficacy over 5 months in 103 sedentary middle-aged male and female adults. Exercise behavior was measured through class attendance, intensity, self-efficacy, and physiological indicators including body composition and aerobic capacity at 3, 12, and 20 weeks of the exercise program. McAuley found that body composition was inversely related to self-efficacy at the start of the program. Thus, participants with higher body fat levels had lower self-efficacy at baseline. At week 12 of the program, self-efficacy was found to be a strong predictor of exercise adherence. Twenty weeks into the program, the strongest predictor of continued exercise adherence was the participant’s exercise attendance and intensity at week 12. This supports self-efficacy theory because it postulates that the strongest source of self-efficacy is mastery experience.

**HOW EXERCISE IMPACTS SELF-EFFICACY**

Interestingly, self-efficacy and exercise have a reciprocal relationship. Although self-efficacy is a determinant of exercise behavior, exercise is also a source of self-efficacy (19). This creates a situation where the people who need the most encouragement to exercise work out the least, partly because of low self-efficacy. Yet, one of the best ways to increase self-efficacy is to exercise. For example, in a study by Mihalko and McAuley (21), 94 middle-aged participants who were previously nonexercisers completed a 20-week aerobic exercise program. Feelings of self-efficacy during a graded exercise test significantly increased from pre-program to post-program.

Self-efficacy can also be increased within the actual exercise session. Moderate exercise can increase self-efficacy in people when evaluated after exercise (28). Rudolph and Butki (24) found that as little as 10 minutes of aerobic exercise could increase feelings of self-efficacy. This has implications for a fitness professional who may be dealing with a hesitant new client during his or her first appointment. If the fitness professional can get the person to start with exercises that they feel more comfortable with, this will lead to increased self-efficacy and more willingness to try more challenging exercises later in that session or in future sessions.

**RECOMMENDED STRATEGIES TO INCREASE SELF-EFFICACY WITHIN EXERCISERS**

Exercise professionals can use a variety of widely used psychological techniques to aid in the development of high
self-efficacy. Because self-efficacy is impacted by mastery experience, vicarious experience, social persuasion, and physiological state, it is logical to develop individual and group strategies aimed at increasing self-efficacy through each of these factors.

INCREASING SELF-EFFICACY THROUGH MASTERY EXPERIENCE

Because mastery experience is the most powerful source of self-efficacy, it is very important to focus on developing mastery experiences within an individual’s exercise program. Using past personal successes, goal setting, appropriate exercise program design, and exercise logs are sources of mastery experiences that can increase self-efficacy.

Past mastery experiences within exercise or similar domains should be emphasized when increasing someone’s current self-efficacy for exercise. The idea that “if I’ve done it once, I can do it again” is a powerful thought process that should be used. If the person has not experienced many mastery experiences in an exercise-related environment, it is very important to use effective goal setting during the initiation of their exercise program to create mastery experiences.

Proper goal setting, widely acknowledged as a powerful source of improved task performance, is crucial during the initial phase of an exercise program (14). Developing realistic short-term goals that lead to early exercise success can have a powerful effect on increasing exercise efficacy through mastery experience (12). The exerciser can post their goals where he or she can look at them, both at morning and night. The SMART principle is a generally accepted goal setting technique than can be used. SMART goals are specific, measurable, attainable, realistic, and time oriented.

In conjunction with goal setting is appropriate exercise program design that matches the person’s current level of fitness. In many respects, the beginning exerciser may have a “fragile” exercise self-efficacy, and the exercise professional should be aware of this and design exercise programs that help build self-efficacy. From a behavioral perspective, the exercise professional should develop a simple exercise program that can be successfully completed by the beginner. This initial success will create a mastery experience for the exerciser and increase self-efficacy within them. At this point, the exercise professional may increase the intensity and complexity of the exercise program to a point matching the fitness background of the individual.

Finally, using exercise logs, in coordination with effective goal setting and effective exercise program design, is an effective way of developing self-efficacy through mastery experience (7,20). Each workout as the exerciser fills in his or her exercise log, they will feel a sense of accomplishment. Additionally, as the exercise progresses through weeks and then months he or she can look back and see the progress they have made since the initiation of the program. Each of these factors makes exercise logs an effective source of mastery experience to increase exercise self-efficacy. Referring to past mastery experiences and then creating new mastery experiences through effective goal setting, exercise program design, and exercise logs should be a cornerstone of programs that seek to enhance exercise self-efficacy in beginning exercisers.

INCREASING SELF-EFFICACY THROUGH VICARIOUS EXPERIENCE

Vicarious experience, the second source of self-efficacy, can be targeted through important strategies such as modeling and imagery (19). Using the concept of modeling, a trainer could share success stories of people similar to his or her client who successfully adopted an active lifestyle. This helps implant the idea of “if she can do it, I can do it too” into the clients mind. Beginning exercisers can analyze the habits of successful exercisers to understand how they can become successful as well.

Personal trainers, whether realizing it or not, constantly use modeling to increase self-efficacy within their clients. For example, a trainer may use several forms of modeling to teach an exercise. First, when discussing an exercise, a trainer may point out another exerciser who is performing the exercise correctly (vicarious experience), then, the trainer may demonstrate the exercise (vicarious experience), and finally, the trainer may have the client perform the exercise correctly in front of the mirror (mastery experience). If the exercise professional finds that the client has a family member or friend who has successfully integrated exercise into his or her life, this may be a good model to use to access vicarious experience. It should be noted that the more similar to the client that the model is, the greater the impact that this model will have (13).

Imagery, another form of vicarious experience, is particularly powerful when used to re-create successful past experiences (29). Exercise professionals can have a person mentally rehearse past successes or even desired future exercise success (11). In imagery of future success, the exerciser could imagine a wide variety of things including a successful set of a particular exercise, an effective workout, long-term exercise adherence, or possibly an outcome of exercise, such as how the person will look when they have lost 20 pounds of fat.

The exercise professional can adapt imagery to any perceived barrier that may lower self-efficacy. For example, if the client is nervous about exercisers who are in better shape judging them, the client can perform imagery of the other exercisers rooting them on and encouraging them. If the person does not think that they can stick with the exercise routine, the trainer can have them image successfully adhering to the routine for the long-term. If the person does not believe that they can lose the weight, no matter what they do, the trainer can instruct and encourage the exerciser to imagine how they will look, feel, and act once they have lost the weight.
INCREASING SELF-EFFICACY THROUGH SOCIAL PERSUASION
Verbal and social persuasion from respected individuals or from positive self-talk is the third source of self-efficacy (20). As demonstrated through the studies of Weinberg et al. (30) and Fitzsimmons et al. (12), verbal persuasion can be a powerful way to influence self-efficacy. Exercise professionals should actively look for health-promoting behaviors that the beginning exercisers are performing and then verbally acknowledge that behavior. The personal trainer can also provide behavioral contracts that the exerciser can sign. For example, an exerciser may sign a contract that they will exercise for at least 30 minutes, 3 times per week. Finally, self-talk has recently been shown to increase self-efficacy, decrease anxiety, and increase performance during the completion of an athletic skill (16). Trainers can educate clients on positive self-talk routines to help them improve their exercise performance. Teaching clients to use affirmation statements such as “I can do this!” and “I’ve done it before and I can do it again” can help the client stay focused on a positive outcome of their routine.

INCREASING SELF-EFFICACY THROUGH PHYSIOLOGICAL STATE
Educating clients about what is going on inside their bodies and what physical sensations to expect during exercise can help them attenuate any anxiety that they may be feeling about the exercise session. Once they understand that the feelings such as muscular fatigue, as well as reaching and maintaining an elevated heart rate, are a part of exercise, they are much more likely to cope with these physiological states more effectively. If a beginning exerciser does indicate that he or she feel highly anxious while thinking of exercise or getting ready to exercise, a trainer can teach them to use relaxation techniques such as deep breathing and positive self-talk to reduce anxiety (15).

SUMMARY
Self-efficacy is an important factor within exercise behavior for exercisers. Self-efficacy can help the beginning exerciser keep going in the face of adversity. It can also help the intermediate exerciser push to the next level of fitness. It can even help the advanced exerciser or athlete overcome dramatic setbacks such as injuries. Because self-efficacy is both a predictor and an outcome of exercise, strength and conditioning specialists and personal trainers should understand the role that self-efficacy plays in behavior and decision making. Further, they should implement a variety of research-based strategies as discussed in this article. Finally, in an effort to get the most positive effect from efforts to increase self-efficacy in exercisers and athletes, a fitness professional’s primary emphasis in this regard should be on creating mastery experiences that will create the foundation for positive exercise behavior with their clients.

References


