Chapter 2

Delivering Psychological Interventions

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Introduction

If you stopped to think about it, you could likely remember a time that you used self-talk to help you overcome a challenge. Maybe you were feeling tired at the end of a workout and you gave yourself a little pep talk saying, “Come on, you can finish this!” Maybe you were playing a doubles tennis match and you had to remind yourself to be patient with your partner who was slightly less skilled than you. Maybe to get you through a late-night study session you took a pause to remind yourself how important it was to you to get a good grade on your upcoming exam. You can also likely think of a time that you’ve set your mind on accomplishing something (i.e., set a goal) or imagined what it might be like if you accomplished that goal (i.e., used mental imagery). Without thinking much about it, we all use psychological skills naturally in our day-to-day lives. As we will see in upcoming chapters, athletes and exercisers have a natural set of mental strategies that they use, for example, to help them learn and perfect skills or strategies, stay motivated to train and compete, and overcome physical pain during injury rehabilitation. You’ve likely seen an Olympic gold medalist during a post medal ceremony interview reflecting on the years that they spent imagining themselves winning the gold. You also may have come across popular Internet blogs showcasing pictures, videos, and descriptions of different exercise routines and fitness tips for exercisers looking to learn from the example of others. These are just two examples of how common psychological skills (imagery and observational learning, respectively) are naturally applied in the contexts of sports and exercise. Indeed, our state of mind plays an important role in helping us master the many challenges of sport, exercise, and rehabilitation and these mental strategies can help to regulate our state of mind. Although it is common for athletes and exercisers to employ some of these mental strategies naturally, the greatest success can come from developing, practicing, and utilizing a full arsenal of psychological skills. To learn and practice these psychological skills and to determine which skills to use and when to use them, psychological interventions can be helpful.

In the previous chapter you learned why and how psychological interventions can be helpful. In this chapter we will discuss the delivery of psychological interventions in sports, exercise, and injury rehabilitation. Specifically, we will discuss the interventionists—the individuals who typically deliver
psychological interventions in each of these settings. We also will discuss the settings in which these interventions typically take place. There isn’t a perfect formula for the delivery of psychological interventions, but we will describe the ways in which these interventions are most commonly delivered and discuss some of the advantages and disadvantages of current practice.

**Who Delivers Psychological Interventions?**

Although many of us have a natural tendency to use some psychological skills in our sport, exercise, and rehabilitative pursuits, developing a full repertoire of psychological skills and implementing those skills into a psychological skills training program may require the help of an expert. There are currently three groups of experts who are likely to deliver psychological interventions in sports, exercise, and rehabilitation: (a) sport and exercise psychology consultants, (b) coaches, trainers, or therapists, and (c) researchers. The role of each group of experts in delivering psychological interventions in sports, exercise, and rehabilitation is discussed below.

**Sport and Exercise Psychology Consultants**

This type of expert is most common in a sport setting, although they are becoming increasingly common in the exercise domain as well. The role of a sport psychologist or sport psychology consultant is to work with individuals or teams to teach the psychological skills that can be useful during training and in competition (both inside and outside the athletic arena). It is important to note the distinction between a *sport psychologist (SP)* and a sport psychology consultant. Whereas a sport psychologist is trained and certified as a clinical psychologist with expertise in sports-related issues and strategies, *sports psychology consultants (SPC)* may have considerable expertise in sports-related issues and strategies but do not have formal clinical training and certification. Both SPs and SPCs have the expertise necessary to help athletes develop psychological skills and implement them into training and competition; however, SPCs are not qualified to diagnose and treat clinical issues that can occur in the domain of sports psychology such as eating disorders and anxiety disorders.

The role of a SP or SPC in working with an athlete or a team can vary greatly. In certain cases, a SP or SPC is invited only to deliver a lecture or a workshop on a given psychological skill. In these cases, the SP or SPC does not develop relationships with the individual athletes but rather provides information and strategies that the athlete, team, or coach can implement at their discretion. In other cases, a SP or SPC works closely with an athlete or team throughout an entire season. These cases may involve regular, individual meetings between the SP/SPC and the athletes and frequent collaboration between a SP/SPC and the coach in order to teach and integrate psychological skills into practices and competitions. The degree to which a SP/SPC is involved with an athlete or team depends on many factors, including the coach’s individual preferences and areas of expertise, availability of a SP/SPC, and the time and money available for psychological skills training.

A recent qualitative study conducted by Zakrajsek, Steinfeldt, Bodey, Martin, and Zizzi (2013) described the way in which coaches prefer to include a SP or SPC into their training program. Some of the main findings from this study indicated that coaches prefer for SPs and SPCs to work one-on-one with athletes as well as with the whole team together, and they prefer SPs or SPCs who can be flexible with their schedule and work with the athletes or the team when the general training program allows.
Whereas coaches like SPs and SPCs who can blend into the team culture and become a part of the regular support staff, they also like to use psychological skills training as a ‘special event’ to break up the usual practice routine. Finally, coaches report that it is critical for the coach and the SP/SPC to be ‘on the same page’ with regard to all facets of the training program and to the role of the SP/SPC. Building an effective relationship between a coach and a SP/SPC could be challenging given the degree of trust that a coach must place in the SP/SPC; however, once an effective relationship is established, the inclusion of a SP/SPC in the coaching/training staff could have highly-beneficial effects on the performance of the athletes or team.

Although consultants appear most frequently in the sport domain, there is growing recognition that integrating consultants into the realm of exercise and rehabilitation could help to increase adherence to physical activity and rehabilitation programs. Primary health care settings may be ideal for delivering physical activity recommendations and prescriptions because of the potential to reach a large number of individuals; however, primary care physicians are often limited by time (Abramson, Stein, Schaufele, Frates, & Rogan, 2000; Petrella & Wright, 2000; Yarnell, Pollak, Ostbye, Krause, & Michener, 2003) or by a lack of specific knowledge required for prescribing physical activity or counseling behavior change (Nupponen, 1998; Ritchie, Stetson, Bass, & Adams, 2002; Walsh, Swangard, Davis, & McPhee, 1999). Thus, physical activity counselors—individuals with specialized knowledge in the areas of physical activity assessment and prescription, theories of health behavior change, and counseling strategies (Tulloch, Fortier, & Hogg, 2006) are beginning to be integrated into primary health care settings (Fortier, Tulloch, & Hogg, 2006). Because of their specific training in counseling strategies, physical activity counselors can assist exercisers or individuals undergoing a rehabilitation program in developing the psychological skills that will assist them in persisting with exercises over the long-term. To date, physical activity counseling in primary care settings has typically occurred one-on-one; however, as the demand for physical activity counselors grows, there may be some potential for developing group-based sessions in which one counselor can aide a group of individuals in learning and practicing important psychological skills.

Coaches, Trainers, and Therapists

Coaches, trainers, and therapists are ideally positioned to deliver psychological interventions because they are the individuals who work with the athletes and exercisers most frequently. If a coach, trainer, or therapist is trained in delivering psychological interventions, there is great potential for the interventions to be well integrated into the larger training program. Because the effectiveness of psychological interventions is increased when the psychological skills are practiced, integrating psychological skills training into regular practice may allow the athletes and exercisers to develop optimal proficiency with these skills. One limitation to coaches, trainers, and therapists as psychological interventionists is that they may not be specifically trained in implementing these interventions.

Instances of coaches acting as psychological interventionists occur primarily in the sport domain because most athletes and teams work directly with a coach. There is widespread understanding among coaches that becoming versed in sport psychology is important to an athlete or a team’s success (Gould, Damarjian, & Medbery, 1999; Martens, 2004; Orlick & Partington, 1988). A basketball coach who is proficient in sport psychology techniques may begin a season by working with her team to establish short- and long-term goals and follow up on the progress toward those goals throughout the season. A
figure skating coach who understands the anxiety-arousing nature of his performance sport may prompt his athletes to use imagery during their training sessions to mentally rehearse the experience of performing in an arena packed with fans, judges, media, and other competitors. A moguls skiing coach may use videos of expert skiers to demonstrate to his more novice athletes the techniques they can aspire to develop. Because coaches are deeply familiar with the unique culture and terminology of their sport, they are in an advantaged position with regard to delivering highly-relevant psychological interventions. For this reason, a coach may be better able to tailor psychological interventions to the unique needs of his or her athletes compared to a SP or SPC who may be less familiar with the sport.

The degree to which coaches implement psychological skills training, however, depends on the degree to which they are comfortable with and trained to deliver such interventions. Although coaches endorse the importance of psychological skills training (Gould, Murphy, Tammen, & May, 1989; Ottley, 2000; Sullivan & Hodge, 1991), it often is excluded from practice sessions (Gould et al., 1999; Grobbelaar, 2007) because coaches feel they lack the necessary education and training to deliver these interventions (Gould & Eklund, 1991; Gould, Medbery, Damarjian, & Lauer, 1999). In fact, Reade and his colleagues (2008) reported that up to 98.4% of coaches of elite athletes recognized a need for additional training and support in delivering psychological interventions. Thus, to capitalize on the vast potential for coaches to deliver psychological interventions, it seems that more thorough training is required.

Trainers and therapists are well-positioned to deliver psychological interventions in the contexts of sport, exercise, and injury rehabilitation. Although trainers and therapists typically do not interact with athletes and exercisers as frequently as do coaches, they tend to work with them on a consistent schedule and on specific tasks. Therefore, although trainers and therapists may not be in a position to integrate psychological skills training into everyday practice, their regular interaction with athletes and exercisers would allow them to assist in development and practice of psychological skills over time. For example, consider a flexibility specialist who works with elite gymnasts. The specialist understands that extreme flexibility is advantageous in gymnastics but that stretching too much may leave an athlete susceptible to injury. In addition, this specialist understands that elite-level gymnasts may feel under pressure to push themselves to the limits when it comes to stretching. Knowing all of this, the flexibility specialist may help the athlete learn to use biofeedback techniques to determine the optimal amount of stretching that can be done safely and to develop a progressive flexibility training regimen. In the context of exercise, personal trainers at a gym are in a good position to deliver psychological interventions. Consider a 60-year-old man who is healthy and active but has noticed that as he ages, physical exercise is becoming increasingly difficult and frustrating. Although he does not work with a personal trainer each time he visits the gym, he has a trainer that he meets with twice per month. Knowing that the man has difficulty staying motivated when the exercises are physically challenging, the trainer can teach the man how to use self-talk to help him get through the difficult parts of the workout. Finally, in the context of injury rehabilitation, athletes typically meet with a therapist on a regular basis and also perform exercises or stretches in the interim. To help an injured athlete recovering from ACL surgery understand the steps in the road to recovery, a therapist might use observational learning techniques to demonstrate to the athlete how the range of motion in the athlete’s knee is set to improve over time. She might then encourage the athlete to use imagery while performing the at-home exercises and stretches to imagine the next step in recovery.

Despite the potential for trainers and therapists to deliver psychological interventions on a consistent basis, many trainers do not feel adequately prepared to do so. For example, Moulton, Molstad, and
Turner (1997) surveyed Division I-certified athletic trainers in the United States Collegiate sports system and found that although trainers perceived that their role exceeded the prevention and treatment of athletic injuries and included sports and rehabilitation psychology counseling, most did not feel personally qualified to do so. Moulton et al. (1997) also reported that none of the athletic trainers involved in the study had access to a sport psychologist for support. In another study, Larson, Starkey, and Zaichkowsky (1996) examined responses from 482 members of the National Athletic Trainers’ Association. Almost half of these trainers (47%) reported that they thought their injured athletes suffered psychological trauma as a result of their injury, but only 25% of respondents had access to a sport psychologist as a part of their athletic therapy team. These two studies point to the need for athletic therapists to be educated and trained in psychological counseling techniques that could assist their athletes in injury rehabilitation. Indeed, a need for training in psychological intervention techniques is widespread across trainers and therapists in sport, exercise, and injury rehabilitation.

Researchers
Although researchers do not represent a typical member of a sport, exercise, or rehabilitation training team, many of the psychological interventions being developed and implemented are a part of a research program. Athletes and sports teams, exercisers and exercise facilities, and rehabilitation clinics that participate in or have partnerships with researchers often benefit from having access to emerging psychological interventions. The goal of research on psychological interventions in sport, exercise, and injury rehabilitation is to develop and test interventions that can be implemented into actual practice. However, while those interventions are being tested (i.e., before effective intervention strategies are disseminated to the general public), athletes, exercisers, and organizations who participate in the research may receive some immediate benefit from access to a new intervention technique.

In the sport domain, effective interventions are relatively easily disseminated into actual practice. Because coaches, especially those of more elite athletes, endorse psychological skills training as an integral part of athlete development, they often seek out the latest research. There are numerous textbooks, websites, and other resources available for coaches who wish to implement effective psychological interventions into their practices and competitions. This widespread endorsement of psychological interventions, however, does not occur in the domains of exercise and injury rehabilitation. Although psychological interventions are not absent from these domains, many exercise trainers and athletic therapists are either skeptical about the importance of psychological interventions or simply are undereducated on how to implement them. Therefore, exercisers who participate in studies testing psychological interventions often are exposed to interventions that they would not have access to through
traditional personal training or exercise instruction approaches. For example, in a research study, Stanley and Cumming (2010) demonstrated among 75 exercisers that individuals who imagined enjoying exercise while riding a stationary bike reported significantly more post-exercise enjoyment compared to individuals who imagined either feeling energized from exercise or who imagined exercising with perfect technique. These findings have potentially-important implications given that the way someone feels post-workout can influence their likelihood of engaging in subsequent exercise sessions.

Although Stanley and Cumming demonstrated a strategy that may be important for increasing perceived enjoyment of exercise, these findings are not in widespread use in the exercise community. Until psychological interventions are more commonly accepted in the domain of exercise, effective psychological strategies for increasing exercise participation may not be disseminated to the general public. In the domain of injury rehabilitation, we have seen that physical therapists do not feel adequately educated to deliver psychological interventions (Moulton et al., 1997). This finding suggests that injured athletes who participate in research studies may have access to psychological interventions that are not a part of traditional therapy.

Where Are Psychological Interventions Delivered?

As you will see in the upcoming chapters, psychological interventions can be delivered in a variety of settings. We will discuss the typical setting for the delivery of psychological interventions in the sport, exercise, and rehabilitation domains separately.

In Sport

In the domain of sport, the two most common settings for the delivery of psychological interventions are practice and competition. Although athletes also use psychological skills outside of sporting arenas, it is most common for interventions to be delivered in the context of practice or competition and for those skills to be practiced both inside and outside actual sporting venues. The optimal setting in which to intervene depends largely on the intervention strategy. For example, because goal setting occurs early in a season and involves a prospective look toward the competitive portion of the season, goal-setting interventions occur primarily during practice. In contrast, mental imagery is often used to help control arousal levels that can often be heightened during competition. Thus, although mental imagery skills may be taught during practice time, it may be more appropriate to use certain mental imagery interventions during competition.

In Exercise

In the context of exercise, psychological interventions are most commonly administered in the exercise setting. Unlike the sport domain, there is typically only one venue in which exercise sessions take place (e.g., a gym or an aerobics studio); thus, this is the natural setting for intervention delivery. For example, exercisers may use self-presentational strategies during a workout at the gym to help them feel more confident. In addition, the exercise setting is typically the location in which exercisers have access to trainers who are likely administrators of the interventions. Conducting interventions inside the actual
exercise setting is ideal because exercisers can learn and practice new psychological skills and strategies in the context in which they are intended.

Exercise psychology interventions also can take place in more real-world settings such as at home or in a primary care clinic. As psychological interventions are becoming more common in the exercise domain, researchers and practitioners are becoming increasingly creative with respect to how these interventions can be delivered. As we have seen, physical activity counseling as part of a primary care team are becoming increasingly popular. In addition, interventions delivered over the phone or in small group sessions outside the actual exercise setting are alternatives to conducting in-house interventions. Delivering interventions outside the actual exercise facility can be ideal for helping exercisers develop their motivation as they plan and prepare for upcoming workouts.

**In Rehabilitation**

Athletes recovering from an injury may use psychological interventions in a wide variety of settings. Perhaps the most obvious place for the delivery of rehabilitation psychology interventions is in the actual rehabilitation environment. For example, athletes may use self-talk to help guide them through their routine of exercises or biofeedback to ensure that they are engaged in the appropriate intensity of rehabilitation exercises. Injured athletes may also use psychological interventions outside the rehabilitation setting at home or in their typical practice environment. For example, athletes recovering from an injury may use imagery to help them mentally rehearse skills they are not able to physically perform in their injured state. They also may attend practice sessions to observe their teammates as they learn and practice new skills and strategies. This opportunity to engage in observational learning in the sport environment may help athletes get back up to speed once they have made a full recovery. Finally, many of the psychological skills discussed in this book can be implemented outside the rehabilitation and training environments to help athletes maintain the motivation to finish their rehabilitation and return to play.
How Are Psychological Interventions Delivered?

Although psychological interventions are delivered in a variety of ways, one common approach entails three phases: education, acquisition, and practice. In the education phase, using sport as an example, athletes learn to recognize the importance of mental skills in sport and how these skills influence performance. There are various approaches to accomplishing this; however, one of the simplest ways is to ask athletes about the importance of mental skills in sport. Although most athletes realize the importance of the mental side of sport, very few actually spend time developing these skills in comparison with the time spent on technical skills. In the acquisition phase, the focus is placed on helping athletes acquire the various psychological skills and learn how to most effectively employ them. In the practice phase, the goals are to have the athletes automate the various psychological skills through over-learning and to implement these skills in practice and competition.

Previously in this chapter other aspects of how to deliver interventions were considered such as delivering interventions one-on-one versus to a whole team, and the delivery of interventions by a SP/SPC versus a coach or therapist. As we review interventions for specific psychological skills (e.g., goal setting, imagery) in the following chapters, we will see the various ways researchers and practitioners have delivered them. One critical determinant of how interventions are delivered is the length of the intervention. Delivering a very short intervention of one or two sessions is very different than delivering an intervention consisting of many sessions spread throughout an entire competitive season.

Which Intervention Technique Should Be Delivered?

As you will see in the upcoming chapters, there are specific benefits to each intervention technique or skill. For example, self-talk can be applied quickly without any extra resources; thus, an exerciser in need of a quick boost in motivation to push through an intense workout may easily apply some self-talk. Biofeedback, however, requires more resources to operate and is more appropriate for facilitating learning over the long term; thus, biofeedback is particularly well-suited for an injury rehabilitation session. Considering what the objective is when undertaking a psychological intervention is critical in determining which skill or combination of skills is optimal. In most cases, a combination of multiple psychological skills is ideal. Consider the sport psychology needs of a collegiate-level volleyball player. Early in the season it will be critical for the player to establish goals. In addition, the early season is a time for skill-learning in which observational learning and biofeedback may be particularly helpful techniques. As a long season of practices and games continues, the player may require some extra motivation to help her stay motivated to train and compete. In this situation, self-talk and imagery may be the best skills to use. If the player is injured over the course of the season, recovering from the injury and returning to play will require still another set of psychological skills. Given the unique benefits that the various psychological techniques can have in improving performance and the experience of the participants, combining psychological skills to deliver a maximally-effective, holistic intervention is often the best approach.
CHAPTER SUMMARY

There are numerous considerations that must be made when planning the delivery of psychological interventions in sport, exercise, and injury rehabilitation. For example, who should deliver the intervention? Where should the intervention be delivered? And, what are the most appropriate psychological skills to include in the intervention? The answers to these questions depend on the specific goals of the psychological intervention, on the specific expertise of the personnel (i.e., coaches, trainers, or therapists) involved, and on the resources available for conducting the intervention. With regard to who should deliver psychological interventions, there are numerous options. It is common for sport psychologists or sport psychology consultants to deliver interventions. Intervention delivery by SPs or SPCs is ideal because of the extensive knowledge, training, and experience accrued by these individuals. When SPs or SPCs are not available, or available resources do not allow for them to be employed, interventions may also be delivered by coaches, trainers, or therapists. Although delivery of psychological interventions by coaches, trainers, and therapists can help to ensure that psychological skills training is incorporated into everyday practice, these individuals often lack the specific training and confidence to deliver psychological interventions effectively.

Determining the optimal setting for intervention delivery depends largely on the desired outcome of the intervention. For example, whereas certain psychological interventions are ideally suited for a practice environment, others have a stronger impact when they are administered in competition. Finally, selecting the appropriate psychological techniques to include in the intervention also depends on the goals of the intervention. When there is a specific issue to be addressed by an intervention, such as an exerciser experiencing social physique anxiety in a gym setting or an injured athlete who is experiencing extreme hesitation returning to regular play after their injury rehabilitation, a single intervention approach may be appropriate. In contrast, when a coach wishes to provide an athlete or a team with optimal training conditions, combining psychological techniques to facilitate learning and help maintain motivation may be best. Regardless of who delivers the intervention, in what setting the intervention is delivered, and which intervention approach that is selected, the best psychological interventions are carefully planned to address the specific needs and challenges of the recipient.

REVIEW QUESTIONS

1. Who is typically responsible for delivering psychological interventions in the context of injury rehabilitation?
2. What are the advantages of an exercise psychology intervention being delivered by a personal trainer? What are some potential disadvantages?
3. List three common preferences that coaches have when working with a sport psychologist or sport psychology consultant.
4. In what circumstances might it be ideal to apply a single sport psychology skill, rather than a combination of multiple skills?
SUGGESTED READINGS


REFERENCES


