

Chapter 1

Introduction

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Sport is generally considered a primarily physical endeavor, involving the marshaling of bodily resources to complete a variety of specialized, demanding physical tasks. Undeniably, physical attributes such as speed, strength, stamina, fitness, coordination, agility, flexibility, and resilience are richly rewarded in competitive sport. Recognizing the abundant physical component of sport performance, scientists have investigated biomechanical, physiological, nutritional, metabolic, epidemiological, biochemical, pharmacological, and medical aspects of sport. Applied practitioners in exercise physiology, physiotherapy, sport biomechanics, sports medicine, sports nutrition, strength and conditioning, and other disciplines have translated research findings into interventions designed to enhance the physical performance capabilities of the athletes.

Despite the pronounced emphasis on physical matters in the sport sciences, it is widely accepted that sport performance is influenced not only by physical attributes, but also by psychological factors. Some athletes seem to have a mental edge over other athletes with comparable physical characteristics and training backgrounds. Some athletes perform better under pressure, implement strategies more effectively, tolerate discomfort better, concentrate more intensely, identify more creative solutions to challenging sport situations, push

themselves harder, learn new skills more quickly, or prepare themselves for competition better than their physically similar peers. Issues associated with the mental advantage gained by these athletes fall squarely within the domain of sport psychology. If psychology is the scientific study of behavior and mental processes, then sport psychology is the scientific study of behavior and mental processes *in the context of sport*. Paralleling the rise of other sport sciences, a large research literature has accumulated to inform the practice of coaches and sport psychology specialists. The purpose of this chapter is to present an introduction to sport psychology. Following a brief summary of the historical underpinnings of the field, the current status of sport psychology is reviewed.

Historical underpinnings

The use of psychological methods to calm the mind, relax the body, or otherwise alter mental and physical states of being dates back millennia, particularly in several Eastern traditions. The use of such methods for the enhancement of sport performance is, however, a more recent phenomenon. Shortly after the emergence of psychology as a science in the late nineteenth century, researchers turned their attention to psychological influences on sport behavior. Among the early studies in the annals of psychology is Triplett's famous experiment on the effects of the presence of a fellow competitor on bicycling performance. Recognizing the potential

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for application of psychological principles to the realm of sport performance, the Chicago Cubs baseball team hired Coleman Griffith, a scholar at the University of Illinois, as a sport psychologist in the 1920s. Several decades later, the Soviet Union employed sport psychologists as assistant coaches on national teams.

Despite these early scientific and applied developments, it was not until the 1960s and 1970s that sport psychology crystallized as a discipline and forged a distinct identity. Sport psychology textbooks were published and professional organizations such as the International Society of Sport Psychology, the North American Society for the Psychology of Sport and Physical Activity, and the Fédération Européenne de Psychologie des Sports et des Activités Corporelles were founded in the 1960s. Scholarly journals devoted specifically to sport psychology, such as the *International Journal of Sport Psychology*, the *Journal of Sport Behavior*, and the *Journal of Sport Psychology* (later the *Journal of Sport and Exercise Psychology*), appeared in the 1970s. The field expanded further in the 1980s and 1990s as specialized academic training programs in sport psychology mushroomed around the world and criteria for certification as a sport psychology practitioner were established in Australia, the United Kingdom, and the United States.

Current status

Sport psychology has matured to the point that competitive athletes are generally aware of the existence of sport psychologists, although they may not fully know what sport psychologists *do* and how they do it. Sport psychologists work with a variety of client types on a variety of issues using a variety of methods. Despite this variety, some trends have emerged in the work of sport psychologists.

Sport psychology clients

Typically, athletes who consult sport psychologists are competitive, participating at the elite, professional, or university level. Young athletes, masters athletes, and adult recreational athletes may also

enlist the services of a sport psychologist. It is common for sport psychologists to consult with coaches, offering information, and working collaboratively to address the psychological needs of athletes on the team. Less frequently, sport psychologists may consult with sport administrators and sports medicine professionals to deal with issues of a psychological nature at the organizational or individual level.

Sport psychology issues

Many of the issues for which sport psychologists are consulted are performance-related. Issues pertaining to motivation, focus/concentration, thought patterns, arousal control, confidence, and mental preparation are common performance-related reasons for seeking the services of a sport psychologist. Because motivation is central to so many aspects of sport involvement—from choosing to participate in the first place and dedicating oneself to extensive training regimens to persisting despite obstacles and exerting effort in the face of discomfort—it is not surprising that many people associate sport psychology primarily with motivation. Sport psychologists work with individual athletes to help them identify appropriate sources and achieve desired levels of motivation for practice and competition. Coaches and administrators may enlist the services of sport psychologists to assist in establishing a sport environment with a motivational climate that is conducive to optimal team functioning.

In most sports, performance can be adversely affected when the attention of athletes is not focused appropriately on the sport task. Athletes who have trouble concentrating or who are distracted by intrusive thoughts are likely to encounter performance difficulties. Sport psychologists can assist athletes in directing their attention to cues that can facilitate enhanced performance.

Sport performance is often impaired when athletes experience levels of arousal or anxiety that are incongruent with their personal preferences or the demands of the sport in which they participate. For example, performance on tasks such as shooting a rifle or attempting a free throw in basketball can be hampered by excessive levels of anxiety and the psychological as well as physiological effects that they have on athletes. Similarly, the

performance of athletes who are not sufficiently energized before or during competition may also suffer. In these circumstances, sport psychologists work with athletes helping them to cope with the stressful situations they inevitably encounter in competitive sport and to identify and achieve levels of arousal that are optimal for their sport tasks.

One of the factors that commonly accompanies and indeed may precipitate anxiety in athletes is a lack of confidence. When athletes doubt themselves or believe themselves incapable of completing various sport tasks, their performance may suffer and their confidence may spiral further downward. Sport psychologists can intervene to help bolster the confidence of athletes and set the stage for enhanced performance.

Athletes spend hundreds of hours preparing themselves physically for competition. Some athletes squander their extensive physical preparation by failing to prepare themselves mentally for competition. Other athletes, however, complement their physical training with mental training that prepares them maximally for the wide range of circumstances they may face before and during the competition. Sport psychologists can facilitate mental preparation by helping athletes to anticipate likely and unlikely-but-possible competition-day events and to develop routines as well as plans to deal with such events.

Having a sport team filled with highly talented individual superstar athletes is a desirable situation, but is no guarantee of sport success. Sport history is replete with examples of seemingly undertalented squads that have excelled in the competitive arena. What accounts for discrepancies of this sort? Overachieving teams are often described as having “chemistry” or cohesion that enables them to overcome the odds and achieve success against more talented teams. Sport psychologists work with groups and teams to help them function more effectively as a unit and, ultimately, perform better.

In addition to performance-related concerns, some of the issues for which sport psychologists are consulted have broader implications than purely those for sport performance. Although injuries, for example, can be clearly detrimental to the performance of athletes, they can also have ramifications for long-term physical functioning. In keeping with this broader focus, sport psychologists can help

athletes prevent, adjust to, or recover from injury. Similarly, depending on their educational background, they can help athletes deal with personal problems that affect their lives off the field or help to diagnose behavioral problems (such as eating disorders or substance abuse) that can influence sport performance. Further, because athletes often begin their involvement in sport early in the lifespan, sport psychologists can help coaches and parents to ensure that young athletes are brought along in environments that are conducive to positive physical and psychological development. At the other end of the developmental spectrum, because athletes are frequently involved in competitive sport for a limited period of time, sport psychologists can also assist athletes in preparing for their lives and careers after their playing days are done.

Sport psychology methods

Sport psychologists use a variety of methods to help athletes address their concerns, with the specific techniques and approach depending on the nature of the problem and the resources as well as the preferences of the athlete. Several techniques, however, are used frequently across multiple types of problems for which sport psychologists are consulted, especially those that are performance-related. These techniques, which are often combined in the form of *psychological skills training*, are goal setting, relaxation, imagery, and self-talk.

In goal setting, it is typical for athletes and sport psychologists (and sometimes coaches) to collaborate in establishing a set of behavioral targets that the athletes then attempt to achieve. Generally, sport psychologists encourage athletes to set goals that correspond to specific, measurable behaviors (such as practicing a sport skill a certain number of times on a given day). These are phrased in positive terms (as behaviors to achieve rather than behaviors avoid), and are challenging yet realistic. Although athletes readily set goals referring to sport outcomes (such as victories in particular competitions), outcomes are often beyond their control. Athletes may be able to control their own fitness, preparation, and effort in competition, but they often cannot control the opposition and environmental conditions that can have a large impact

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on the sport outcomes they ultimately incur. Consequently, goal setting principles commonly refer to the need to set goals for both individually controllable processes as well as sport outcomes, under which athletes have less complete control but which may have greater inspirational value. To maximize the impact of goal setting, sport psychologists generally recommend that athletes record their goals in written form and lay them out on a timetable, from short term to long term. By charting their progress toward goal achievement on a regular basis, athletes can readily evaluate the effectiveness of the goal setting intervention and determine whether they need to adjust their goals—upward or downward—to ensure that the goals are both challenging and attainable. Further, by learning to identify potential barriers to goal attainment and develop strategies to get around such roadblocks, athletes can arm themselves with a means of persisting and continuing to pursue their important aspirations in the face of adversity.

Relaxation training involves teaching athletes to voluntarily decrease the amount of tension in their muscles, calm their minds, and decrease autonomic responses such as their heart rate and blood pressure. In one common method known as progressive relaxation training, athletes are instructed to alternately tense and relax various muscle groups in an attempt to discern the difference between tension and relaxation, and, ultimately, gain the capability of relaxing their muscles at will. In another common form of relaxation training, athletes are asked to engage in various breathing exercises that induce a relaxation response through the taking of deep, diaphragmatic breaths. In autogenic training, a third relaxation training method, athletes learn to relax their bodies by giving themselves suggestions regarding their breathing rate and the temperature as well as heaviness of various parts of the body. With sufficient practice, athletes can use self-instructions such as “my left arm is warm” and “my arms and legs are heavy” to achieve a state of relaxation on a consistent basis.

Imagery is a versatile technique in which athletes are guided to create mental images in which multiple senses are engaged. Sometimes paired with relaxation training, imagery can be used for assisting in the acquisition of a new physical or

mental skill, rehearsing a previously acquired physical or mental skill, learning a new strategy, and many other functions in sport psychology. The content of the images varies according to the reason the technique is being used. For example, when imagery is used to foster the development of a physical skill such as a golf swing, sport psychologists are likely to instruct athletes to use visual, auditory, kinesthetic, and other sorts of images that correspond to swinging a golf club. Some imagery instructions involve adopting an internal perspective, in which the athletes are asked to imagine particular settings or situations as experienced through their own senses. Viewing a scene through one’s own eyes, as cyclists might view the roadway ahead of them, would be an example of internal imagery. Imagery from an external perspective, in contrast, involves athletes viewing themselves performing specific actions as other people would see them, as if they had been filmed and were watching themselves on a video monitor.

Self-talk, which refers to one’s internal dialog with oneself, can be used to influence how athletes think, feel, and behave. For example, negative self-talk, which includes pessimistic, critical statements about oneself and one’s prospects for the future, is considered especially detrimental to sport outcomes. Consequently, sport psychologists generally encourage athletes to use self-talk that is positive, which can instill a sense of optimism, or instructional, which directs athletes toward the task at hand. Implementation of a self-talk training program is often preceded by an assessment of athletes’ typical self-talk patterns—both what they say to themselves and the circumstances under which they say it—and identification of any irrational or unusual beliefs or expectations that might underlie the athletes’ counterproductive thoughts.

Although presented separately, the four methods (i.e., goal setting, relaxation training, imagery, and self-talk) are readily integrated within a single psychological skills training program when appropriate. Moreover, the methods are complementary. For example, relaxation training can be used to produce a calm state that is conducive to generating mental images. Similarly, athletes can use self-talk to trigger mental images that help themselves

achieve a more relaxed state. Athletes who are disinclined to implement relaxation, imagery, or self-talk into their training program can use goal setting to enhance their adherence to the program.

In addition to these well-known methods, sport psychologists use a variety of other techniques to address the concerns of athletes. Among the factors that influence the specific approach to assessment and intervention taken by sport psychologists in working with athletes are the characteristics of the athletes' focal problems, the nature of the education and training of the sport psychologists, and the strengths, weaknesses, and preferences of the athletes. A skier with pre-race jitters would almost certainly be treated with different methods than a figure skater with an eating disorder. An athlete with a strong visual sense might display a preference for imagery-based approaches, whereas an athlete who thinks readily in terms of words might elect a program involving modification of self-talk.

Applied issues

Sport psychologists are confronted with several challenging issues that pertain to professional practice with client populations. As an interdisciplinary field, sport psychology has benefited richly from the input from professionals in physical education, psychology, and the sport and exercise sciences. Because sport psychology is simultaneously a subfield of psychology and one of the sport and exercise sciences, there has been controversy on the appropriate education, training, and credentials required for sport psychologists. This controversy has translated into confusion for prospective students in sport psychology and for coaches, athletes, and administrators who wish to receive sport psychology services. Recent credentialing and certification efforts, such as those by the Association for Applied Sport Psychology, the Australian Psychological Society's College of Sport Psychologists, and the British Association of Sport and Exercise Sciences, have eased the confusion, but public awareness of these programs is not yet sufficient to enable consumers to identify appropriately qualified practitioners on a global basis. Unfortunately, practitioners without appropriate training and experience in sport psychology

sometimes attract clients who lack the pertinent information needed to evaluate the qualifications of prospective consultants.

As a subfield of psychology, sport psychology is guided by a code of ethics. Among the ethical issues that are particularly salient in sport psychology are competence, confidentiality, and multiple relationships. As in many other professions, sport psychologists are ethically bound not to offer services for which they are not sufficiently competent to provide. Given that trust is the pillar on which relationships between athletes and sport psychologists rests and that matters of a personal and private nature are often discussed in consulting sessions, it is not surprising that confidentiality is paramount in applied sport psychology. It is essential for sport psychologists not to share information about their clients with others unless they have received written consent from their clients to do so. Even in situations where coaches or team administrators are paying for the sport psychology services, it is inappropriate for sport psychologists to share information without the athlete's consent. Another aspect of ethical behavior in sport psychology that can cause misunderstanding if not clarified at the outset of the consulting relationship is the prohibition on avoidable multiple relationships. Sport psychologists should not, for example, simultaneously serve as an athlete's sport psychology consultant and fellow nightclub attendee.

Conclusions

Sport psychology has emerged as a field with a research tradition that provides a foundation for direct application with athletes. As the role played by psychological factors in the performance and overall well-being of athletes has become better understood, interventions have been designed to favorably affect athlete behavior throughout their involvement in sport and beyond. Although practiced widely among elite athletes in many sports, sport psychology is still gaining acceptance. With further expansion of the field comes the potential to help ensure that the psychological needs of athletes at all levels of competition are addressed.

Further reading

Hanton, S., Mellalieu, S. (eds.) (2006) *Literature Reviews in Sport Psychology*. Nova, New York.

Moran, A.P. (2004) *Sport Psychology: A Critical Introduction*. Routledge, New York.

Tenenbaum, G., Eklund, R.E. (eds.) (2007) *Handbook of Sport Psychology*, 3rd Edn. Wiley, New York.

Weinberg, R.S., Gould, D. (2006) *Foundations of Sport and Exercise Psychology*, 4th Edn. Human Kinetics, Champaign.

Williams, J.M. (ed.) (2006) *Applied Sport Psychology: Personal Growth to Peak Performance* 5th Edn. McGraw-Hill, Boston.