CHAPTER

16

Mindfulness in Sport

Joe Mannion, *Pepperdine University*

You don't have to control your thoughts; you just have to stop letting them control you.

–Dan Millman

I meditate everyday. . . I think it's important. . . it's like having an anchor. . . I have a calmness about whatever comes my way and a poise, and that comes from starting the morning off with meditation.

–Kobe Bryant

Millman's words capture a central tenet of mindfulness and mindfulness-based approaches to well- being and performance enhancement. Namely, how we relate (and respond) to thoughts is often more of a problem than the content of thoughts. To put it in practical and succinct terms, we might ask athletes (and ourselves), "Do you believe everything you think?" The question is not meant to be rhetorical, but rather, humanistic or phenomenological (i.e., closely examining one's lived experience). The same may be said regarding feelings and body sensations. Just because one feels incompetent as an athlete does not mean that athlete actually is incompetent, regardless of how intense or compelling the feeling might be.

To expound on this tenet, individuals, especially in Western cultures, tend to relate to thoughts (and feelings and body sensations) as though they are (a) accurate, (b) equivalent to external reality, (c) law-like such that one must conform behavior to the thought content, and (d) equivalent to the self or one's identity. It is more precise and often less problematic, however, to relate to them as (a) frequently inaccurate (and therefore not to be taken personally), (b) separate from external reality, (c) arbitrary such that one may choose a different course of action, and (d) separate from the self or one's identity. Depending on rapport and cultural context, sport psychology consultants might engage athletes in exploring these relationships with their own thoughts, feelings, and sensations. For example, Exercise 1 demonstrates that thoughts are not inner laws to which athletes must conform and do not inherently translate to external reality.

Exercise 1: Thoughts Are Not Laws

1. *Say out loud, "I can't tap my hand."*
2. *Then begin physically tapping your hand.*
3. *Continue repeating "I can't tap my hand" while you are tapping your hand.*
4. *Continue tapping while repeating "I can't tap my hand" for approximately 30 seconds.*

This exercise illustrates that thoughts are not equivalent to external reality. This principle may be extended to apply, for example, to negative thoughts about performance (e.g., "I can't do anything right today").

Another exercise to highlight that thoughts, feelings, and sensations are separate from the self involves asking athletes, "If you are observing your thoughts, who is observing the thoughts?" The answer may be described as the *observing self* or the *noticing self* (or a sport-adapted term such as *the captain*). What is important is establishing that there is a more significant and stable self, observing the ever-changing stream of thoughts, who may make mindful decisions in response to what is observed, rather than mindlessly conforming. What is the practical implication? Athletes typically are faced with decisions related to performance and well-being before, during, and after practice or competition. If they are relating to thoughts, feelings, and sensations in the usual manner (i.e., as accurate, equivalent to external reality, law-like, one's identity) and the content is negative, the consequences can be detrimental, such as avoidance, distractibility, preoccupation, reduced effort, self-handicapping, increased anxiety, and hostility.

So how does mindfulness factor with this tenet? Mindfulness is a sort of prescription for how to potentially change these inner relationships between an athlete's observing self and the thoughts, feelings, and body sensations that are observed. It represents a way to be with these inner sensations, as Millman stated, without automatically being controlled by them. Succinctly, ***mindfulness*** may be described as deliberate nonjudgmental (or compassionate) awareness of present-moment thoughts, feelings, body sensations, and the environment (Bishop et al., 2004; Kabat-Zinn, 1990). Langer (1990) contrasted mindfulness with *mindlessness,* which she described as simply going through the motions or automatically responding; a state of mind that is vulnerable to mistakes, unnecessary difficulties, and predetermined outcomes. Mindfulness practices (e.g., meditation, mindful stretching, mindful eating) cultivate dispositional mindful awareness of daily life (e.g., activities, inner experiences, reactions to these experiences). Over time, practitioners begin to change their relationships with inner experiences—no longer, for example, assuming thoughts are accurate, identifying with them, and getting reactive—as if they are equivalent to external reality (e.g., athletes sometimes negatively react to thoughts of making performance mistakes as if they made those mistakes in actual competition).

Readers may notice this approach diverges from traditional tenets and assumptions about mental skills–performance links. Whether one is a seasoned practitioner or a student of sport psychology, the differences between traditional interventions in the field and newer mindfulness-based approaches can get confusing. It is important to consider these differences, however, for competent intervention. Traditional sport psychology practices tend to emphasize, active attempts to control inner experiences (e.g., thoughts, feelings, body sensations), whereas mindfulness-based approaches tend to emphasize a frequently counterintuitive acceptance of these experiences. Even among experts in these respective areas, there is disagreement regarding whether they have degrees of compatibility or if they are in conceptual opposition and therefore incompatible. There is also disagreement over their relative effectiveness and what specific performance outcomes may occur. From a humanistic perspective, and based on working experience, the assumption herein is that different athletes will prefer different approaches, so it is important for consultants to be ready and able to approach various situations from both perspectives.

Mindfulness has potentially myriad applications in applied sport psychology, affecting well-being and performance in and beyond sport. This chapter is meant to serve as an overview of mindfulness in sport, including a brief examination of how mindfulness made its way from Buddhist philosophy into Western science and eventually entered sport psychology, associated research, and common practical approaches. The overall emphasis will be on mindfulness as a practice and on establishing clarity regarding its core facets. A final section

includes predominant formal sport-based modalities and introductory mindfulness interventions. In this chapter, I offer a survey of the landscape in this area from which students and practitioners may continue to explore, benefit, and engage.

Eastern Roots and Western Branches: Mindfulness and Culture

How did mindfulness enter the sport psychology canon? To offer respect to its Buddhist roots, it is necessary to consider that mindfulness is a key aspect of Buddhist philosophy, dating back over 2,500 years (Epstein, 1995). The Four Noble Truths are core facets of Buddha's teachings and are focused on the human condition of suffering, its cause, and a prescription for change. The following summaries of the Four Noble Truths and the Eightfold Path, a means to enlightenment, are highly abbreviated and meant to help establish basic context. The Four Noble Truths are traditionally stated as

1. Life is suffering.
2. The cause of suffering is desire.
3. The mitigation of suffering is possible.
4. An Eightfold Path exists for the cessation of suffering.

Mark Epstein (1995, 2005), who has spent much of his psychiatric career helping Western therapists and general audiences understand Buddhist teachings (and integrate them into Western therapy), offered his interpretation of the notion of suffering in the first Nobel Truth as *pervasive dissatisfaction,* or an absence of permanent satisfaction. As he noted, even highly pleasurable experiences can lead to dissatisfaction, as they are transient and do not offset insecurity or unrest. Examples in sport include the temporary reduction in performance anxiety from a successful practice and the impermanent joy or relief from reaching a new competition level.

Epstein (2005) also described the origin of suffering in the second Noble Truth as intense craving or clinging, not just general desire. In other words, problems arise in the way one relates to intense desire, rather than in desire itself, such as mindless or servant-like indulgence (e.g., acting without reflection on personal values or potential consequences). Athletes, for example, often crave feelings of being worthy or competent that they believe winning will achieve for them. Parents sometimes destructively cling to the goal of their adolescent child becoming an elite athlete. There are many unhealthy ways in which intense desires for adoration, identity, beauty, material gain, and other attributes mindlessly unfold in and through sport. The Third Noble Truth proclaims that the mitigation of suffering is possible, and the Fourth Noble Truth describes the Eightfold Path for this cessation and the way to nirvana.

The Eightfold Path is a set of ethical, behavioral, meditative, and moral principles: right understanding, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration (Epstein, 1995). Within this context, mindfulness is intended (along with concentration and effort) to help increase and stabilize awareness to perceive these and other truths. Mindful insights, subsequently, can pierce faulty perceptions and default patterns of reacting, offering possibilities of relief and new ways of being and relating.

Contemporary references to mindfulness frequently do not acknowledge these historical and cultural considerations and sometimes prescribe it in ways that are antithetical to its original Buddhist intent. Chögyam Trungpa (2002) warned against using meditation, Buddhist principles, and spirituality for the purposes of ego building and for material or worldly gain. Thich Nhat Hanh, another Buddhist leader, offered that adoption of mindful practice, regardless of the goal, would eventually transform people and cultivate a perspective of compassion, so long as it is done with a spirit of camaraderie (Confino, 2014). Contrasting Buddhist philosophy and Western materialism, he further noted that individuals can be victims of their success

and associated pursuits, but not of their happiness (an important Buddhist value; see Andersen & Mannion, 2011, regarding integration of Buddhist philosophy into sport psychology practice).

East Meets West

Interest in mindfulness concepts in Western psychology and medicine predates adoption in mainstream sport psychology by decades. Western psychology interest appears to have germinated in the mid-1900s, especially among psychodynamic leaders (e.g., Fromm, Suzuki, & Demartino, 1970; Jung, 1964). Harvard cardiologist Herbert Benson pioneered Western medical interests in mindful practices, publishing the seminal text, *The Relaxation Response* (Benson, 1975/2000), which examined physiological and psychological health benefits of some forms of meditation (e.g., transcendental meditation, his own steps to elicit the relaxation response; see Chapter 12 for a description of Benson's exercise adapted to sport). Soon thereafter, Jon Kabat-Zinn's (1982) work on mindfulness meditation and related practices as interventions for stress and other medical conditions formed a basis for proliferation of mindfulness in clinical psychology.

Collectively, mindfulness-based modalities frequently are called the *third wave of behavioral and cognitive therapies* (Hayes, 2004). Although the second wave (i.e., traditional cognitive-behavioral therapy; CBT) tends to emphasize changing maladaptive thoughts, feelings, and sensations, the third wave emphasizes changing the relationship individuals have with these passing inner experiences (e.g., mindfully observing a self-critical thought, accepting it as inaccurate, and letting it pass with compassion and without taking it personally or acting on it).

Mindfulness in Sport Psychology

Often referred to as one of the first peer-reviewed applications of mindfulness in our field, Kabat-Zinn, Beall, and Rippe (1985) conducted mindfulness-based interventions with collegiate and Olympic rowers. They noted mindfulness meditation seemed to enhance a variety of relevant psychological skills, including concentration, stress management, and letting go, as well as qualities experienced during peak performance (e.g., being in the present, sense of freedom). Kabat-Zinn et al. (1985) also reported positive feedback from athletes and coaches regarding the approach. Following this conference paper, mindfulness received minimal attention in sport psychology until almost two decades later when Gardner and Moore (2004) explored the potential benefits of mindfulness in sport.

Gardner and Moore (2004) contrasted traditional psychological skills training (PST) approaches in sport psychology with mindfulness, pointing out that attempts to control, eliminate, or replace thoughts and emotions, for some athletes, can introduce other task-irrelevant thoughts and processes and, consequently, disrupt performance. For example, a baseball player using traditional PST approaches to change thought processes may notice negative self-talk as he waits in the batter's box for the next pitch. Attempts to reframe, alter, or stop this internal dialogue divert a portion of attention inward. Subsequently, this diversion may misplace some of the athlete's attention away from more salient external cues, such as instructions from coaches or the pitcher's body. For some athletes, the intervention may have a sort of iatrogenic effect (i.e., the treatment makes things worse).

Further supporting this reconceptualization, Gardner and Moore (2004) cited Wegner's (1994) theory of ironic processes of mental control, which describes the effort to achieve a desired mental state (such as traditional PST approaches to create ideal performance states) as involving two processes. The first mental process comprises scanning for mental content consistent with the desired state. The second process evaluates whether the first process is necessary by scanning for mental content that is inconsistent with the desired state. Key to implications regarding sport performance and well-being, Wegner and Erber (1992) suggested that when an

individual actively attempts to suppress unwanted thoughts under pressure (e.g., an athlete trying to suppress negative thoughts during competition), the first process is inhibited by anxiety, leaving the second mental process dominant. In other words, the meta-cognitive process (i.e., thinking about thinking) of scanning for unwanted mental content predominates, paradoxically bringing that material into awareness. Therefore, attempting to control or suppress undesirable thoughts can make them ironically "hyperaccessible" under stress (Wegner & Erber, 1992).

Rethinking mental skills–performance links, Gardner and Moore (2004) concluded that consistent high performance in sport requires, in part, *mindful awareness* of task-relevant external cues; *nonjudgmental and nonreactive awareness* of internal thoughts, feelings, and physical sensations; and *clarification of values* paired with *values-based behavior*. Similarly, they suggested that optimal self-regulation necessitates low levels of self-criticism, vigilance (external or internal), and worry concerning performance outcomes. Based on these ideas, Gardner and Moore (2004) proposed that athletes might be better served by accepting thoughts, emotions, and bodily sensations (i.e., being mindful) rather than actively striving to alter, control, or suppress them. This foundation led to the development of the **Mindfulness-Acceptance-Commitment** (MAC) program, a protocol focused on increasing mindful awareness and nonjudgmental acceptance in sport. As described by Gooding and Gardner (2009), the goal of MAC is to help athletes

> maintain attention without the need to reduce, limit, or otherwise control naturally occurring internal experiences such as thoughts, emotions, and physical sensations. The protocol uses acceptance, values-commitment, and mindfulness training to promote the development of present moment acceptance of all forms of thoughts, feelings, and physical sensations, along with attention to competition-appropriate cues and contingencies. (p. 308)

Gardner and Moore (2007) proposed that MAC can enhance athletic performance as well as enhance overall psychological well-being in and out of sport. Birrer, Röthlin, and Morgan (2012) proposed 11 psychological skills relevant to sport that may be improved through regular mindfulness practice: (a) attention, (b) motivation, (c) volition (e.g., overcoming fatigue, pain management), (d) arousal regulation, (e) perceptual-cognitive functions, (f) motor control, (g) self skills (e.g., self-awareness, self-confidence), (h) personal development and life skills, (i) coping, (j) communication and leadership, and (k) recovery.

Research Support for Mindfulness Interventions

A growing evidence base supports using mindfulness to enhance well-being and performance. In particular, randomized controlled trial studies, often considered the most powerful research design for assessing interventions, and meta-analyses, a statistical technique used to synthesize data from many studies on the same topic, offer strong support regarding the benefits of mindfulness. Randomized controlled trial studies examining mindfulness-based programs have demonstrated, for example, reduced anxiety, depression, and bodily complaints (e.g., Farb et al., 2010); increased positive affect (e.g., Jha, Stanley, Kiyonaga, Wong, & Gelfand, 2010); increased self-compassion; and decreased anger expression, worry, and absent-mindedness (Robins, Keng, Ekbad, & Brantley, 2012). Carson and colleagues (2004) reported interpersonal benefits, which have potential implications for a range of sport relationships (e.g., teams, coach–athlete, parent–athlete), including increased relationship satisfaction, autonomy, closeness, and acceptance and decreased relationship distress. In a review of over 50 randomized controlled trial studies, Keng, Smoski, and Robins (2011) found a wide array of benefits, in addition to those mentioned earlier, supporting mindfulness interventions: decreases in

aggression, alcohol and substance use, disordered eating, and distress, and improved attention, life satisfaction, and immune functioning.

Further, neuropsychology-based investigations have shown, for example, mindfulness interventions to increase working memory (e.g., Farb et al., 2010) and reduce emotional reactivity and disruption on a lab-based performance test (Ortner, Kilner, & Zelazo, 2007). Moore and Malinowski (2009) also reported that experienced mindfulness meditators demonstrated faster processing speed, superior attention, and greater cognitive flexibility than non-meditators, all of which may affect performance depending on sport-specific demands.

Given the salience of many of these effects for athletes, researchers began to examine mindfulness interventions in the context of sport. For example, wheelchair basketball players who participated in an eight-week mindfulness training program reported benefits that spanned competition, training, and everyday life, including improved foul shooting accuracy, concentration, awareness, heart rate regulation, stress management, and sleep (MacDonald, Oprscu, & Kean, 2018). Additionally, mindfulness has been associated with decreased incidence of injury (Petterson & Olson, 2017) and increased pain tolerance (Kingston, Chadwick, Meron, & Skinner, 2007). Across studies (e.g., De Petrillo, Kaufman, Glass, & Arnkoff, 2009; Gross et al., 2018; Kaiseler, Poolton, Backhouse, & Stanger, 2017; Li, Zhu, Zhang, Gustafsson, & Chen, 2019; Vidic, St. Martin, & Oxhandler, 2016), athletes who have been taught mindfulness have shown

- Increased awareness
- Increased sense of control
- Greater focus
- Improved athletic coping skills
- Decreased stress
- Decreased detrimental aspects of perfectionism
- Reduced substance use
- Less hostility
- Greater emotion regulation
- Less burnout

These benefits likely have positive influences on sport performance. Accordingly, in post-intervention journals, college basketball players noted improvements in athletics as well as other life domains (e.g., relationships, temperament, academic performance; Vidic et al., 2017). Another study of college basketball players revealed level of mindfulness to be predictive of free-throw shooting performance (Gooding & Gardner, 2009). Bühlmayer, Birrer, Röthlin, Faude, & Donath's (2017) meta-analysis showed mindfulness was related to performance improvement in pistol and rifle shooting and dart throwing (precision sports). In randomized controlled studies, performance enhancement has been attributed to mindfulness interventions via athlete self-assessment (Josefsson et al., 2019), as well as coach-standardized ratings of athlete performance (Gross et al., 2018).

Formal Mindfulness-Based Modalities in Sport

Several formal mindfulness-based approaches have emerged in the sport psychology literature. As noted earlier, Gardner and Moore (2004, 2007) proposed the first modality specific to sport, MAC. Its goals included increasing mindful awareness and nonjudgmental acceptance, promoting focused attention, and encouraging commitment to behaviors consistent with personal values. The program has the following seven modules:

1. Preparing the client with psychoeducation
2. Introducing mindfulness and cognitive defusion
3. Introducing values and values-driven behavior
4. Introducing acceptance
5. Enhancing commitment
6. Skill consolidation and poise—combining mindfulness, acceptance, and commitment

7. Maintaining and enhancing mindfulness, acceptance, and commitment (Moore, 2009, p. 298)

MAC includes education on mindfulness and acceptance, short meditations, and values clarification (Gardner & Moore, 2004, 2007). Athletes are taught to observe (cognitive defusion) and accept a wide spectrum of thoughts, feelings, and bodily sensations (rather than attempt to change or suppress them) and to refocus on task-relevant cues. Values are distinguished from goals (e.g., growth versus completing a marathon), and athletes are encouraged to commit to behaviors associated with their values, regardless of what they are thinking or feeling (Gardner & Moore, 2007). These processes are meant to enhance awareness, attention, and emotional regulation and, subsequently, performance and overall psychosocial well-being.

Since the MAC protocol was published, several other mindfulness programs have been presented in the literature. The goals of **Mindfulness Meditation Training in Sport 2.0** (MMTS 2.0; Baltzell & Summers, 2017) are to enhance attention, poise (i.e., improving one's relationship with aversive thoughts, feelings, and sensations, especially in the context of competitive pressure), and adaptation (i.e., increased ability to be present and adjust as appropriate). It includes six modules: (a) mindfulness, (b) acceptance, (c) concentration, (d) compassion, (e) core values and self-regulation, and (f) intentional engagement. The program is designed for a group format and is intended to be presented in six weekly hour-long sessions (which may be broken into two 30-minute sessions) that include instruction, practice, and discussion. Daily ten-minute practice is encouraged throughout the program. Sport performance is believed to potentially improve through an enhanced and adaptive ability to attend to relevant cues in the environment. Based in part on the importance of compassion in Buddhist philosophy, MMTS 2.0 also emphasizes self-compassion throughout the program and includes interpersonal mindfulness, for example, through compassionate practices toward other people.

Kaufman, Glass, and Pineau (2017) adapted Kabat-Zinn's (1990) Mindfulness-Based Stress Reduction to sport, resulting in **Mindful Sport Performance Enhancement** (MSPE). MSPE is designed to be delivered in a group format, but may be adapted for individual athletes. Exercises include seated and walking meditations, mindful body scans, and yoga-like movements and postures. The current iteration (Kaufman et al., 2017) is six weeks long with weekly 1.5-hour sessions, each of which includes both didactic lessons and experiential content to practice these lessons. MSPE facilitators ideally tailor program material to the sport of their audience, if possible, as well as model mindfulness qualities. Participants are asked to meditate 10 to 40 minutes per day throughout the program and to complete a daily mindfulness log. Sessions are sequenced to progress from nonmoving mindfulness practices (e.g., seated meditation, mindful eating) to *practice in motion* (beginning with yoga poses, followed by walking meditation), and finally integration into sport-specific movement. Program content includes psychoeducation and exploration of mindfulness as it relates to a variety of sport and life topics such as flow states, acceptance, attachment, and nonstriving.

Mindful Performance Enhancement, Awareness and Knowledge (mPEAK) (Haase et al., 2015) is based on MBSR (Kabat-Zinn, 1990) as well. It is distinct, however, in its organization and inclusion of resilience and neuroscience psychoeducation, particularly related to interoceptive processing (i.e., senses beyond the five basic senses, such as pressure, temperature, and musculoskeletal tightness) when performing under challenging conditions (see Paulus et al., 2009). While developed in conjunction with the U.S. National BMX Cycling Team (see https://health.ucsd.edu/specialties/mindfulness/mpeak), mPEAK is presented for use across performance contexts. Haase et al. (2015) have noted that the program is still in early stages and subject to revision. At the time of this writing (early 2019),

the mPEAK program is described as a three-day intensive workshop followed by six weekly follow-up sessions designed to increase performance and resilience (defined as the ability to successfully adapt, including during difficult or threatening situations). The program has four core principles or pillars (UC San Diego Health, 2019):

1. "Inhabiting your body" (learning mindful awareness of the body, including interoception)
2. "Getting out of your own way and letting go" (learning intentional versus default-mode responding)
3. "Dancing with pain and working with difficulty," such as fear, stress, and failure (recognizing, accepting, and changing one's relationship to difficulty)
4. "The pitfalls of perfectionism and the glitch in goals" (letting go of perfectionism and optimizing motivation to achieve goals)

Participants are encouraged to practice mindfulness and self-regulation skills for a minimum of 30 minutes per day.

Doing Mindfulness with Athletes

While participation in a formal mindfulness program, will provide in-depth training, athletes can benefit from less comprehensive mindfulness practice, too. The following section is composed of exercises that sport psychology consultants may use and adapt based on their athletes' needs. When introducing mindfulness to athletes, it may be helpful to distinguish mindful awareness from general awareness (which is explored in depth in Chapter 10). Again, mindfulness specifically entails a deliberate nonjudgmental (or compassionate) awareness of present-moment thoughts, feelings, and bodily sensations as they endlessly arise and fade away (Bishop et al., 2004; Kabat-Zinn, 1990). It also means striving to remain open, curious, and accepting of what is observed, whether pleasant, unpleasant, or neutral, rather than being tempted to automatically react with forms of active engagement such as suppression, avoidance, and intellectualization (Epstein, 1995; Kabat-Zinn, 1994). Words like acceptance and openness might seem foreign in the context of sport. Phil Jackson, 11-time National Basketball Association (NBA) Championship coach who is known for his integration of Zen Buddhism and mindfulness into coaching, stated:

> In basketball—as in life—true joy comes from being fully present in each and every moment, not just when things are going your way. Of course, it's no accident that things are more likely to go your way when you stop worrying about whether you're going to win or lose and focus your full attention on what's happening right this moment. (Phil Jackson Quotes, 2019)

Jackson noted that a vital skill for athletes (and coaches) is to be able to divorce themselves from what just happened (e.g., a referee's bad call, an issue with a teammate or competitor) and to re-center again and again (Begley, 2014). Another way of explaining this idea to athletes is by stipulating that acceptance, in this context, is not meant to insinuate resignation or giving up; rather, it is often a key step in making desirable changes.

For effective mindfulness practice, it is important to understand the concept of cognitive defusion. **Cognitive defusion** refers to separating one's self from one's thoughts. It is to observe or be aware of thoughts, reactions to thoughts (e.g., emotional responses, overanalysis, avoidance), and the consequences of those reactions (see Bernstein et al., 2015). When in a state of defusion, one recognizes and accepts that a thought may or may not be true, may or may not be important, is not a threat, and is simply something to notice (Harris, 2009). Defusion, or meta-awareness, can help create a gap between thoughts and reaction that can allow athletes and coaches to consider different and/or effective responses to their thoughts (as opposed to trying to eliminate or control them; Hayes, 2004). Cognitive defusion can be illustrated by holding

up one hand, spreading out the fingers, and placing the spread fingers right in front of one's eyes (hand touching one's nose, representing mental content). This demonstrates what the world looks like in a state of cognitive fusion. Next, move the hand, while in the same position, outward, such that there is space between one's eyes and the hand. This new expanded view offers a clearer perspective and highlights cognitive defusion.

Another exercise involves the sport psychology consultant (or teammate) narrating an athlete's internal dialogue while standing next to or behind her (e.g., saying out loud common negative self-talk while she shoots free throws). The athlete practices mindfully noticing the consultant's dialogue and, without engaging or suppressing, gently returns her awareness to the task (over and over), just as she would with her internal dialogue during practice or competition. One may even reinforce that athletes already have experience with this skill, shaking off the jeers of opposing fans. Exercise 2 offers another way to practice cognitive defusion.

Exercise 2: Cognitive Defusion

This cognitive defusion exercise is meant to highlight the arbitrariness of unpleasant thoughts and modify the athlete's relationship with them. Ideally, the athlete should already understand mindfulness basics (especially concerning mistaken relationships with thoughts) and have solid trust with the sport psychology consultant.

1. *Identify a self-defeating belief (e.g., "I can't handle the pressure") or thought based in shame, regret, or worry ("don't choke again") or that otherwise blocks values-based behavior.*
2. *Sing the statement to the tune of the "Happy Birthday" song several times.*
3. *Notice any changes in the way the words now are experienced.*
4. *If they had a positive insightful experience, consider reinforcing the phrase's loss of power with a kindhearted,* "that *is what is keeping you from going out and doing what you do almost every practice?*"

After exploring what mindfulness is and rationales for its use in sport (and there are many idiosyncratic ways to do this based on one's training and the audience), sport psychology consultants may choose to introduce mindful breath meditation. Begin by encouraging athletes to have an observing stance of nonjudgment, acceptance, and curiosity. To enhance participation and systematic practice, tell athletes, for example, that doing mindfulness meditation is like going to the mental weight room to strengthen these skills for real-life application. Remind them that attention, just like in practice and competition, will invariably be pulled in different directions (e.g., thoughts of the past or future, commentary about the exercise, noises, sensations elsewhere in the body), and they might find themselves reacting with judgment, frustration, or wanting to flesh out new thoughts or ideas. Encourage them to notice these distractions and associated reactions with compassion, openness, and curiosity and, importantly, to gently, kindly, return their attention to the present moment (e.g., on their breath), striving to remain observant rather than actively engaging (Bishop et al., 2004). Note that this practice of realizing one's focus is not where it should be and then refocusing will become a template for refocusing in practice and competition. When ready, athletes can follow these basic steps for a brief demonstration of **mindful breathing**:

1. Sit comfortably with your legs uncrossed and arms at your sides or on your lap.
2. Close your eyes, if comfortable, and begin by bringing your awareness to your breathing.
3. Notice as your chest and stomach rise and fall with each passing breath.
4. You're not trying to breathe in a special way; rather, just notice the sensations of the natural flow of your breath.

5. Notice where you feel your breath—in the chest, nostrils, throat, mouth—feel the expanding and relaxing with each breath.
6. If you realize you're no longer noticing the current breath, gently and compassionately return your awareness to it.
7. Take a few moments simply to notice your breathing.
8. Before finishing, take a moment to notice any changes in your state since starting.

Initially, athletes might practice mindful breathing for one minute. With practice, they extend the exercise into a five- to ten-minute meditation. Once athletes are comfortable doing it, they can integrate mindful breathing in sport practice and competition settings.

Another fundamental exercise is a mindful body scan. Once practiced, this scan can be done in short periods, such as breaks in competition, to recenter. Instead of focusing on breathing, here athletes attend to the sensations in their bodies. As with all mindfulness exercises, reinforce that it is okay if other thoughts appear; simply notice them and gently return awareness to the body. It also may be helpful to remind athletes that the purpose of the exercise is bring awareness to body sensations as best one can, not to make any changes. To do a **mindful body scan**, follow these steps:

1. Sit or lie comfortably with arms and legs in an uncrossed position.
2. Close your eyes if that's comfortable for you.
3. Begin by gently checking in with your body, as it is right now. Notice any sensations.
4. Start the scan by noticing your feet. Be aware of them without judgment—just experience the moment. Simply notice the feelings and sensations such as temperature, muscle tension, touch, or pressure. Do not label them good or bad, do not try to change them—just be aware of them.
5. Let your attention slowly move to your lower legs. Simply pay attention to them; be compassionately aware.
6. Little by little, move your attention up your whole body, noticing each body part: upper legs, hips, stomach, lower back, chest, upper back, hands, lower arms, upper arms, shoulders, neck, face, and head.
7. Be aware of your whole body, noticing any changes in your state since beginning the scan.
8. When you're ready, open your eyes.

Athletes also can integrate being mindful into common sport routines such as stretching or warm-up activities. One might introduce **mindful stretching** similar to the following:

1. Slowly bend at the waist and lean forward, let your arms hang toward the floor.
2. Feel the stretch in your lower back and legs.
3. Notice any sensations as you stretch. Be aware of them without judgment—just experience the moment.
4. Simply notice the feelings and sensations.

This script is just one example of a simple mindful stretch. Athletes can be encouraged to approach any or all stretching exercises with mindful focus. As they become proficient, they can add mindful focus to jogging warm-ups or sport skill warms-ups (e.g., mindful dribbling in soccer or basketball). These exercises encourage being fully present during what often are rote, mindless activities.

Some athletes may find it helpful to record their sport psychology consultant's mindful meditation prompts (e.g., with a phone) and go through an exercise while listening to the recording (or use a mindfulness app). There also are a number of apps, such as Headspace or Calm, that provide guided meditation practice, individualized prompts, and reminders to practice (see https://www.healthline.com/health/mental-health/top-meditation-iphone-android-apps#the-mindfulness-app).

After completing any mindfulness exercise, it is important to process athletes' experiences, including any pleasant or unpleasant experiences, and to explore how the skill might apply in the athlete's performance preparation (e.g., mindful warm-ups focusing on stretching sensations), performance situations (e.g., the ball can replace the breath as the object of attention), and life (e.g., mindfully notice a breath cycle during a difficult conversation). It is important to revisit the fundamentals and note it takes consistent practice (e.g., five to ten minutes of daily mindfulness meditation) to build habit strength, just like developing physical skills. Remind athletes that distraction does not represent failure or not being good at mindfulness.

It is not uncommon for athletes who are particularly perfectionistic or self-critical, however, to struggle with the idea that becoming intermittently distracted is expected and normal. Sometimes metaphors can express ideas faster and with more influence than dry technical explanations (Andersen & Speed, 2011), and one that is often effective is likening mindfulness meditation to a bicep curl: when an individual is lifting a dumbbell during the concentric phase of a bicep curl, the associated muscle fibers fire. Similarly, when an individual is mindfully noticing, for example, the breath, associated neural pathways in the brain innervate. When a person lowers the weight during the eccentric phase of the curl, bicep fiber contraction decreases. Likewise, when a person's attention inevitably wanders from the current breath, activity in associated neural pathways decreases. When the individual realizes his attention has wandered and compassionately returns it to the breath, it is like beginning the next bicep curl. It is all part of the exercise. The repetitions strengthen the skills and pathways, so it is no more a failure to lose mindful awareness than it is to perform the eccentric phase of a bicep curl. Additionally, some people find it helpful to name distractions that they notice: *name it to tame it* (e.g., "thoughts," "noises") and return focus to the breath or body. It is the *recovery* of mindful awareness (over and over and over, just like in sport practice) that is really the object of the practice.

Once athletes are comfortable with mindful breathing and the body scan, they can expand their practice to a broader mindfulness meditation (see Appendix A). This exercise allows for deep, deliberate, nonjudgmental (or compassionate) awareness of present-moment thoughts, feelings, and bodily sensations for a longer period (e.g., 10 to 20 minutes or more). Conversely, Biegel and Corbin (2018) offer a brief checking in exercise, **The 3-Second Rule**, which can be used before or even during practice and competition. Athletes quickly assess the focal areas of the mind, body, and heart rate plus breath.

1. Take three seconds to mindfully notice your mind: what thoughts, feelings, and/or emotions are present.
2. Take three seconds to mindfully notice your body: scan your whole body, observing what feels normal, different, loose, tight, hurt, or any other sensations.
3. Take three seconds to mindfully notice your heart rate plus breath: become aware of the connection between your heart rate and breathing.

This quick mindful awareness can provide information to adjust for effective and efficient sport performance. Notably, this brief exercise will be most effective after athletes have developed proficiency with mindfulness.

Interpersonal Mindfulness

To this point, mindfulness has been almost exclusively described as an *intrapersonal practice* (i.e., awareness of one's own thoughts, feelings, bodily sensations, and surroundings). Interest in mindfulness as an *interpersonal practice,* however, has increased in recent years. This focus is particularly important, as research has shown common factors can be pivotal to therapy outcomes (Schore, 2014; Tryon & Tryon, 2010). In particular, meta-analyses and reviews have demonstrated that the quality of

therapist–client relationships (typically as perceived by the client) is a key determinant of therapy outcomes, often more predictive than the interventions themselves (e.g., Norcross, 2011; Orlinsky & Howard, 1986; Sexton & Whiston, 1994). Therefore, paying attention to the quality of such collaborative relationships is important when seeking to improve outcomes, because it is in and through these relationship dynamics that interventions unfold.

A number of scholars (e.g., Mannion & Andersen, 2015, 2016; Petitpas, Giges, & Danish, 1999) incorporated these long-standing findings into the sport, performance, and exercise psychology literature. Mannion and Andersen (2015, 2016), for example, have adapted the work of Daniel Siegel, a pioneer of interpersonal neurobiology. He described how mindfulness might enhance relationship quality (and potentially outcomes) by relating it to three practical factors: presence, attunement, and resonance (Siegel, 2010). The following examples pertain to sport psychology consultant–athlete relationships, but also may be applied to other relevant relationships (e.g., coach–athlete, parent–athlete, teammates). *Presence* occurs, for example, when sport psychology consultants have personal mindfulness practices and are able to sustain and mindfully recover compassionate, open, accepting, and curious awareness of the present moment (as opposed to being mentally or emotionally absent). This intrapersonal practice may help sport psychology consultants and their clients maintain receptive mind-sets (e.g., pro-social states) and manage and reduce protective mind-sets (e.g., fight-flight-freeze states). This idea has tentative support from functional magnetic resonance imaging (fMRI) research that has demonstrated trait or dispositional mindfulness to be associated with increased prefrontal activity (e.g., improved attention, memory, and problem solving) and decreased amygdala activity (e.g., reduced flight-or-fight response) (e.g., Creswell, Way, Eisenberger, & Lieberman, 2007).

Siegel (2010) distinguished that one can have mindful presence whether alone or with company. Presence is the foundation of attunement, which is an interpersonal process. *Attunement* occurs when sport psychology consultants use their presence to be mindfully aware of their clients' external cues (e.g., affect, reported mood, behaviors) and to be less distracted by irrelevant stimuli, whether internal (e.g., memories, worries) or external (e.g., practice or game activities). This type of presence and attunement may allow consultants to accurately understand and sense what clients are experiencing and what they may need. In collaboration, sport psychology consultants and athletes often can sense when the other is not present and attuned. When athletes sense that their consultant is present and attuned, they may feel *felt* and understood, helping them deepen their working alliances and gain confidence in their consultant's interventions. *Resonance* occurs when both members of the dyad are present and attuned and a powerful sense of "we" emerges, without either individual losing themselves (e.g., boundary blurring). As Gallese and colleagues (2007) described, when we take in our clients and help them become mindfully present and attuned to us, they in turn begin to take us in psychologically (see Mannion & Andersen, 2015, 2016, for further examination of these processes in performance and exercise contexts). Many sport psychology consultants have had the experience of athletes reporting that in difficult moments they *heard* their consultant's voices in their heads offering helpful guidance.

Interpersonal mindfulness practice includes exercises to modify sport practices and improve interpersonal attunement between teammates. During his NBA coaching tenure, Phil Jackson described adapting practice environments and sport rules to enhance mindful awareness. For example, he would hold scrimmages in dim lighting or with a no-talking rule, each of which prompted players to have heightened awareness of the present moment (presence) and each other's body language (attunement; Jackson & Delehanty, 1995). Based on similar principles, another attunement exercise that may be used between teammates or between sport psychology consultants and athletes is **emotion charades**.

1. Two athletes sit facing each other.
2. One athlete chooses a feeling to emote and selects an intensity level between 1 and 10 without disclosing the feeling.
3. Silently, using only body language, that athlete conveys the feeling and intensity.
4. The other athlete pays mindful attention to the partner's body language for about 45 seconds.
5. Then the observing athlete tries to name the feeling and intensity level and states what cues led to these guesses.
6. The emoting athlete discloses the feeling, intensity level, and what the cues were intended to express. Any discrepancies in interpretations can be explored.

Variations on this exercise may include doing it pre-meditation and post-meditation to notice any differences or improvements in accuracy. Athletes may choose progressively more nuanced feelings or include multiple feelings. With practice, the pair's accurate attunement will likely increase and should be explored in terms of translating this attunement to sport. This exercise may be particularly helpful with athletes who compete in pairs (e.g., figure skaters or tennis doubles partners). This mindfulness exercise can be creatively modified for specific sports, sport cultures, and athlete personalities.

A Word of Caution

When teaching mindfulness, consultants should be aware of common myths about it that may interfere with learning. In and of itself, mindfulness specifically does not aim to induce relaxation, improve productive thinking, or clear an individual's mind of thoughts. Focusing on these aims can be counterproductive to mindfulness practices. While these mental states may be outcomes of mindfulness practices, remember the goals of mindfulness are (a) to be nonjudgmental and compassionate, open, radically accepting, and curious in the observation of the given focus; (b) to recognize when the attention has drifted; and (c), without indulging or actively suppressing those distractions, kindly and gently return the attention to the original focus, whether during meditation or on the field. Sport psychology consultants may reinforce these ideas by linking the meditation practice with sport performance. For example, the breath (or other mindful focus) can be replaced by the present-moment, task-relevant stimulus (e.g., the ball, practice swings, coaching instructions, a competitor) and when attention drifts to task-irrelevant stimuli (e.g., distracting thoughts, crowd noises, anxiety symptoms in the body), the athlete should gently and kindly return to the task-relevant cue. Additionally, one may explore how mindfulness practice may increase tolerance, for example, of precompetitive anxiety until it passes, reducing reliance on unhelpful coping, such as overtraining, overeating comfort foods, or not adhering to precompetitive routines. Sport psychology consultants should consider how these various principles and exercises might be adapted to meet the idiosyncratic needs of their clients.

Like other psychological skills, mindfulness involves some risks, and sport psychology consultants are ethically bound to be aware of and prepared to respond to possible adverse effects. Although not specific to mindfulness meditation, the National Institutes of Health's National Center for Complementary and Integrative Health issued a statement that meditation is generally safe for healthy people, but cited "rare reports" of causing or worsening psychiatric symptoms such as anxiety and depression (see https://nccih.nih.gov/health/meditation/overview.htm#hed5). Dissociation also can accompany meditation (APA, 2013), and purposeful induction can become involuntary overtime, leading to fear and aversion (see Van Dam et al., 2018, for additional considerations).

Regarding implications for sport psychology practice, it is not difficult to imagine that some athletes who have used avoidance strategies, for example, to cope with unpleasant thoughts, feelings,

or body sensations, may at first notice increases in these experiences. While initial increases occasionally occur, they should dissipate with mindfulness practice. Proper training and clinical judgment, however, are required to know how to respond if an athlete should experience acute distress or adverse effects (see Chapter 19 regarding when and how to refer athletes for mental health counseling).

Summary

It is unlikely that any single intervention or approach will help all athletes, and it can be difficult to predict which athletes will benefit from different interventions. From a humanistic perspective, sport psychology consultants need to be adequately knowledgeable and flexible to meet the varying needs and interests of diverse clients. Mindfulness-based approaches offer an alternative to traditional PST, and considerable evidence supports their effectiveness for improving general well-being and various clinical conditions. There is also mounting evidence showing sport performance benefits of practicing mindfulness.

As Thich Nhat Hanh suggested, mindfulness practice has transformative potential (Confino, 2014). This practice may cultivate a variety of well-being benefits, including a compassionate perspective such that sports participation might become means for discovery, growth, connection, and healing. Sport psychology professionals and students can learn more about mindfulness approaches from recent sport and mindfulness texts (e.g., Baltzell, 2016; Zizzi & Andersen, 2017). Additionally, sport psychology practitioners and graduate students may benefit from pursuing training in formal mindfulness modalities and personal practice. Mindfulness in sport psychology is in a relatively early stage. It is an exciting time, given the emerging research and intervention opportunities, and it may be tempting to oversimplify or oversell potential benefits. As our field continues to wrestle with these issues, it brings to mind a Zen poem by Shunryu Suzuki called *Mind Weeds*. As he stated, when weeds are pulled and buried near a plant, they give nourishment. Like mental weeds in mindfulness practice, our collaborative weeding of remaining issues will gradually enrich our understanding, practice, and service, both to ourselves and our clients.

Study Questions

1. How does mindfulness fit into Buddhist philosophy?
2. What are three myths about mindfulness?
3. What is Wegner's theory of ironic mental processes, and what is the relevance to sport performance?
4. How are mindfulness-based approaches different from traditional sport psychology interventions?
5. What is cognitive defusion, and how may it help athletes?

6. What are three metaphors that may be helpful to use when explaining mindfulness concepts?
7. How might you integrate mindfulness meditation into sport practice?
8. How may mindfulness enhance sport performance?
9. What are six well-being benefits of mindfulness?
10. Summarize the various formal mindfulness-based modalities used in sport psychology.
11. Distinguish between intrapersonal and interpersonal mindfulness.
12. What is *presence, attunement,* and *resonance,* and how may they affect sport psychology consultants' work with athletes?
13. Identify components of intrapersonal mindfulness than can benefit relationships among athletes.
14. Identify two resources for further study of using mindfulness in sport.

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APPENDIX

A

Mindful Meditation Script

1. Close your eyes, if comfortable, and begin by bringing awareness to the sense of being in this [room, gym] in this seated posture
2. Listen for ambient noises, knowing each sound is anchoring your attention in the present moment.
3. Now, bring a wide attention to your whole body. Notice, as best you can at this moment, with compassion, [pause] openness, [pause] acceptance, [pause] and curiosity.
4. Each time you notice that your attention has drifted from your body, [snap fingers] you just became mindful again. Without indulging the distraction or trying to suppress it, just gently and kindly bring your attention back to your body.
5. Next, begin to bring your mindful awareness to the current breath, if you haven't already. Notice as your chest and stomach rise and fall with each passing breath.
6. You're not trying to breathe in a special way, but rather, just noticing the sensations of the torso expanding and relaxing with each [pause] passing [pause] breath.
7. Again, each time you realize you're no longer noticing the current breath, gently and compassionately return your awareness to it. Some people find it helpful to name the distraction first. Thought. Sound. Feeling. Name it to tame it and return to the breath.
8. If you notice you're feeling more relaxed, that's fine. If you're feeling unsettled or anxious, that's fine. If you're not sure how you're feeling, that's fine, too.
9. Notice those transitions from exhale to inhale and from inhale to exhale.
10. [Depending on time] Take a few more moments to notice your breathing.
11. Now begin to widen your mindful awareness again, noticing your whole body [pause] in these seated postures. [pause] Begin to notice sounds again.
12. Before we finish, take a moment to notice any changes in the quality of your presence of mind since we started. Notice any changes in the feeling of your body since we began.
13. At your own pace, begin to flutter your eyes or open your eyes, taking a few moments to reorient to the space and each other [pause] maintaining mindful awareness.