

# Mood and Self-Regulation Changes in Underrecovery: An Intervention Model

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Vince Lombardi (as cited in Maraniss, 1999, p. 217) is quoted as having said in 1959, “Fatigue makes cowards of us all.” Did Lombardi know about underrecovery back then? The athlete in high-intensity training provides a wonderful example for the elucidation of psychological factors that can adversely affect performance when the athlete is underrecovered. Lombardi knew well that fatigue can trigger many emotions. During training camps high-performance athletes incur training loads that surpass general training levels; this high-intensity training compromises physiological recovery and can bring a deterioration of mood (Kellmann & Kallus, 1999). Such loads demand physical and psychological adaptive responses to restore homeostasis as described in chapter 1 of this volume. However, when the recovery of consumptive resources is inadequate, the athlete is said to be in a state of underrecovery (UR), and return to psychological homeostasis is impaired. When this happens, various negative psychological states become possible.

The model outlined in this chapter describes a triad of negative psychological responses in the UR<sup>1</sup> athlete: depressed-tone (negative affect) responses, anxiety-like mood responses, and a constellation of various fear responses each arising as a consequence of nonspecific arousal and low self-regulation factors. Each of the members of this triad is subclinical (i.e., not a diagnosable mood disorder) and has thought, affect, and be-

havioral components. This chapter identifies empirical research that serves as the scientific base for the responsible intervention in UR; case examples follow. We begin by elaborating on the concept of empirically supported treatment as it applies to intervention in UR.

Our position on cause and effect is that poor self-regulation and low mood may sometimes *result in* poor athletic performance and prolong inadequate recovery; at other times, these factors may directly *result from* inadequate recovery. Recovery occurs at physical, psychological, and social levels. We therefore propose continuous two-way interactions between psychological and physiological states.

## The Need for an Empirically Derived Intervention Model

Empirical research on depressive mood, anxiety, and fear provides for the development of scientifically and professionally acceptable interventions that can hasten the return to balance and homeostasis in the UR athlete. A chapter on methods for intervention would imply that UR can be reliably diagnosed and that an empirically validated model has already spawned *theory-driven interventions* that have themselves been subjected to investigation. Unfortunately, this is not the case. The interventions that are herein proposed are intended to serve as examples of applications of the current

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1. We will use UR for both *underrecovered* and *underrecovery* in this chapter.

model. There are no treatment manuals. The term *empirical construction*, resting at the foot of treatment planning in the absence of model and method validation, must be understood at the outset. Wilson (1996) cautions the psychologist that clinical judgment is never preferable to the rigorous application of science to treatment planning. Empirical construction refers to such use of empirical research to establish a scientific basis for intervention in a context, such as sport, in which there may be few if any tested interventions (Gaskovski, 1999).

Applied sport psychologists generally use empirical construction. On the basis of theory, they teach strategies for coping with fear, for dealing with precompetitive anxiety, for modifying negative thinking, and for altering communication patterns with coaches when no treatment manuals exist. For example, a high-functioning UR athlete in a training camp might (with no history of psychological disorder) start to socially withdraw, cry, or talk self-critically. Research on depression would not apply to this individual since he is not depressed, and research on the acute effects of crisis would not apply to this individual since he is not in the aftermath of a traumatic event. Neither does the literature on overtraining apply (Weinberg, 1990). There is little empirical evidence that methods intended to alter a UR-evoked mood state would be appropriate, necessary, or relevant, let alone efficacious. In sum, therefore, we do not yet have empirically supported psychological interventions for UR athletes.

## Caveats for Ethical Intervention

Consecutive American Psychological Association (APA) task forces have confirmed the obvious by stating that psychology is a science and that the ethical practitioner uses interventions that possess a foundation in science. In 1996 one APA task force noted the following in its report:

Whatever interventions that mysticism, authority, commercialism, politics, custom, convenience, or carelessness might dictate, clinical psychologists focus on what works. They bear a fundamental ethical responsibility to use where possible interventions that work and to subject any intervention they use to scientific scrutiny. (American Psychological Association, 1996, p. 7)

Recently, Hunsley, Dobson, Johnston, and Mikail (1999) added their weight to this position by

reiterating that the services provided by psychologists are ethically founded on a base of scientific evidence; with Chambless and Hollon (1998), they advocated a step further in requiring that interventions be based on manual-based clinical trials. These are obvious challenges for the applied sport psychologist working with UR athletes, and, as some will quickly point out, the working relationship between the athlete and the sport psychologist still remains one of the most powerful predictors of mastery (Bachelor & Horvath, 1999). Empiricism will probably never overtake the human element as one of the most powerful factors in the facilitation of change.

## The Model

Sport psychological intervention with the UR athlete promotes emotional management and self-regulation. Our intervention model, as delineated in this chapter, builds on the following factors and their interactions: (1) fatigue as a trigger for self-regulation failure and (2) fatigue and neurochemical responses to stress and fatigue as related to three forms of mood disturbance—(1) low positive affect (depression, helplessness, and low self-efficacy), (2) anxiety, and (3) fear.

## Definition of Negative Mood

Underrecovery can evoke acute and brief (negative) emotional changes as well as transient but more stable (negative) mood states. After Rosenberg (1998) and numerous others we see emotions and moods as brief adaptations to a situation lasting more than a few hours. The present UR model uses Watson and Clark's (Clark & Watson, 1991; Mineka, Watson, & Clark, 1998; Watson & Clark, 1984) framework for negative affect (NA) even though their model addresses affects that are typically more stable and more pervasive in scope than negative affects characteristic of UR; these include subjective nervousness, tension, and worry (anxiety) combining in NA with anger, scorn, revulsion, guilt, self-dissatisfaction, low positive affect, and sadness. Transient NA, or negative moods, are common in UR; one should note that they lack the stability that is necessary for a clinical diagnosis. In exception to the model of Lane and Terry (2000), we urge the use of the terms *low positive affect*, *negative affect*, and *negative mood* in order to denote ephemeral states as contrasted with clinical states, such as depression (e.g., Major Depressive Disorder). Watson and Clark (1984) write:

“NA will be significantly related to transient discomfort at all times and regardless of the situation, even in the absence of any overt distress” (p. 471).

Following the tripartite model of anxiety and depression (clinical states) (Clark & Watson, 1991; Mineka, Watson, & Clark, 1998), our construct of UR places the nonspecific distress of arousal (e.g., irritability and disturbed sleep) in a position where it plays a nonspecific etiological role in low self-regulation, low positive affect (depression, low self-efficacy, helplessness), anxiety, and fear. In UR, as in the tripartite model, anxiety and low positive affect comprise emotions that tend to cluster their own respective sets of symptoms. The present model adds fear with its own somewhat discrete cluster of symptoms. Some level of intercorrelation among the factors is expected in UR. A further distinction of the present model is that the low positive affect common in UR is conceived as more directly related to high physiological arousal (e.g., high cortisol and high resting heart rate) than would be the case for the depressive affects of the tripartite model.

## Neurochemical Responses to Stress: High Arousal

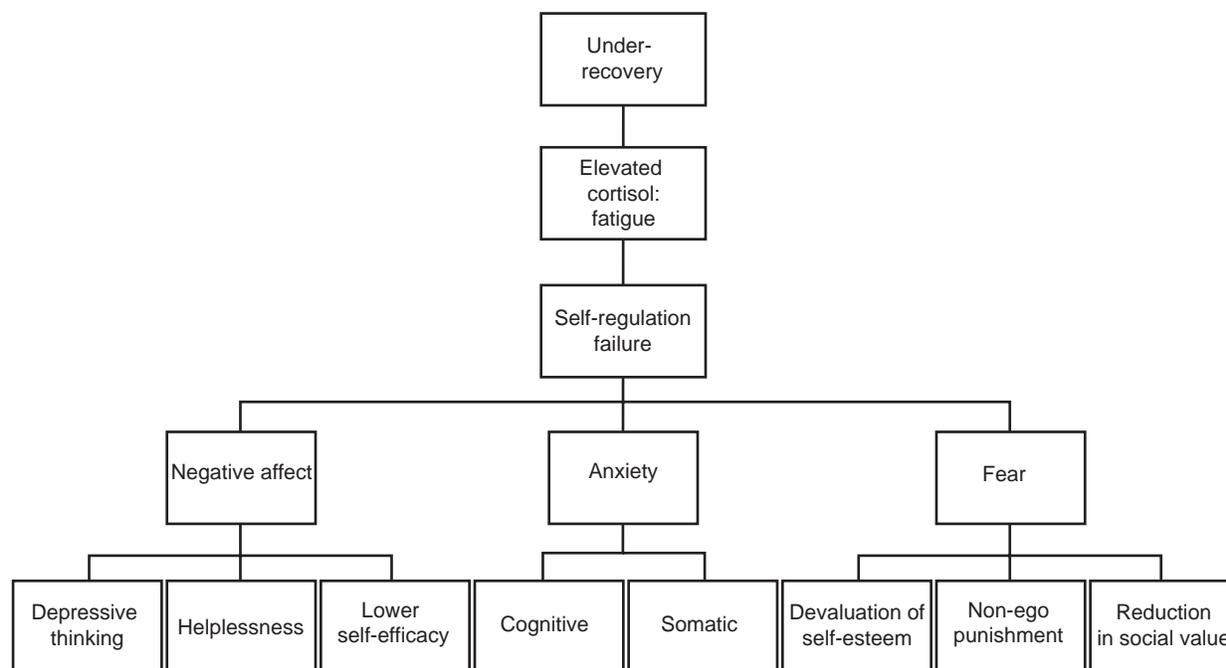
UR in sports is caused by the imbalance between the competing demands of training and recovery. The major mood-related response to hard training is a change in the function of the hypothalamic-pituitary-adrenal axis. On this axis, Lehmann, Foster, and Keul (1993) distinguished between sympathetic and parasympathetic imbalance; the cause for either the sympathetic or parasympathetic overtraining response is chronic UR. Principal among those functions studied are catecholamine and cortisol responses, which in the sympathetic overreaching model result in fatigue with excitability, as distinct from the parasympathetic overreaching model in which they result in fatigue with depression (low positive affect) (e.g., Lehmann et al., 1993). Consistently, norepinephrine is the only variable that reliably marks the early differentiation between adequate recovery and overreaching in elite swimmers even though, as some will assert, an overreaching response is highly influenced by the athlete's mood (Mackinnon et al., 1997).

The initial response to hard training is an elevated cortisol response (Steinacker et al., 1999). For instance, at a 1996 training camp, prior to the Junior World Championships, German rowers had basal cortisol levels that were shown to be el-

evated by 18% after the first week of hard training, before later decreasing. As part of their literature review, the authors explained this as a common response to elevated high-intensity training that precedes later decreases in cortisol levels (the late signs of overreaching). By two weeks, an undertrained athlete may have adrenal fatigue and show relatively *low* levels of cortisol, whereas the well-trained athlete will continue to show high levels of cortisol in response to training loads (Mackinnon et al., 1997).

In sum, the first physiological step of psychological significance in UR is probably a change in cortisol levels and heightened catecholamine function. Higher arousal is the result of early adaptations to increased training. In the present model, these cortisol and catecholamine changes interact with significant cognitive and emotional events. For instance, negativity and uncertainty in thinking, especially as regards the self, has been very consistently correlated in the literature with adverse changes in physiological arousal. In 1967 Brady showed that (conditioned) response unavailability and response uncertainty were related to elevated steroid secretion in humans. Davis (1983) and others found that negativity and uncertainty in adult depressive self-description accounts for a significant portion of the variance in adrenal activity (Rogers & Craighead, 1977; Schuele & Wisenfeld, 1983). Today, for the 40 to 60% of depressives who show increased cortisol secretion, the persistent nonsuppression of adrenal hyperfunction after dexamethasone administration (the dexamethasone suppression test) reliably assists in the classification of those depressed patients who will be nonresponsive to neuroendocrine antidepressants (Heuser, 1998; Maes, Jacobs, Suy, & Minner, 1990; Wahlund, Säaf, & Wetterberg, 1995). These findings in depression research reinforce the observation that endocrine changes correlate with cognitive and emotional changes.

Thus, in the present model as shown in figure 9.1, during training stress, central importance is given to the alteration of adrenal function and to related mood alteration in the UR athlete. Basically, as an athlete fatigues, develops UR, and shifts biochemically in the early, predicted direction toward higher levels of arousal, the athlete also becomes vulnerable to showing the psychological symptoms of UR, and emotional management becomes critical. Starting from the top in figure 9.1 the athlete shows this physiological shift. This is possibly followed by changes in self-regulation and by the possible changes in mood yielding negative affect, anxiety, and fear. Eight



**Figure 9.1** A model for underrecovery intervention.

consequences of these emotions are listed in figure 9.1 and will be discussed in detail later together with low self-regulation.

## Recovery Behavior Changes Linked to Low Self-Regulation

When arousal increases beyond optimum, and when optimal, once-dominant responses become less probable, the likelihood increases for negative emotion and behavioral shifts. This high arousal of UR can precipitate poor self-regulation; recovery from training stress requires both the competence required for positive behavior as well as the self-control to use one's competency. Impaired self-regulation operates in our model as a nonspecific factor that is common to low positive affect, anxiety, and fear.

Kellmann (cf. Kellmann & Günther, 2000; Kellmann & Kallus, 1999, 2001) argues persuasively that the negative behavioral shifts that can correlate with UR may include lesser tendencies to rehydrate, eat, and sleep in a regulated way; to attend to regimens for dry-land training and stretching; and to meet one's social needs. Baumeister (1997) described this as poor self-regulation. He linked poor self-regulation (i.e., of one's recovery needs) to fatigue (Muraven & Baumeister, 2000) and emotional distress

(Baumeister, 1997). Summarizing numerous results (Isen, Nygren, & Ashby, 1988; Leith & Baumeister, 1996), Baumeister concluded that altered arousal states create a potential for self-defeating behavior and poor consideration of risks, odds, and the best path to success.

The self-control required for mood regulation is a limited-supply resource. Recently, in reviewing the evidence for this position, Muraven and Baumeister (2000) stated that self-control diminishment relates to fatiguing self-control strength. They distinguished this finding from any suggestion that NA can itself predict self-regulation breakdown. Basically, the finding that self-control emanates from a limited resource is central in the present model and helps explain how persons fail to monitor and regulate their training stress adequately when they may have already expended all self-control resources in driving through hard workouts and coping with immediate results. In other words, the athlete who works to control a bad mood and works to cope with the demands of a workout may have no self-control reserves at the end of a day with which to further self-regulate by going to bed at a reasonable time, eating a healthy meal, and socializing with friends. Repeatedly, Muraven and Baumeister (2000) asserted that repeated acts of self-control (as during training) impair perfor-

mance on later tasks if these later tasks also require self-control.

## Common Mood Changes Under High Arousal and High Demand on Self-Regulation

As previously stated, three forms of negative mood can arise from self-control breakdown under conditions of high arousal: (1) NA and depressive thinking (including low positive affect, low self-efficacy, and helplessness), (2) anxiety, and (3) fear. As reviewed earlier, our UR model has added to the tripartite model of depression and anxiety by including fear and self-regulation as discrete factors and by allowing that the model may apply equally to transient moods and more persistent affects. This model links generalized distress, self-regulation failures, low positive affect, and physiological hyperarousal (PH) related to anxiety states. Alternative three-factor models have left intact the central thesis of nonspecific distress and discrete, interacting moods (e.g., Zinbarg & Barlow, 1996). For instance, Zinbarg and Barlow clustered dysphoria, fear, and anxiety all under negative affect. The data of Joiner et al. (1999) suggest further support for the model demonstrating mood correlations with PH (and high cortisol) for fear and panic, subjective anxiety, and depressive thinking on the order of  $r = .24$ ,  $r = .58$ , and  $r = .43$ , respectively. The physiological symptoms of PH include perceived overheating, dizziness, difficulty breathing, wobbly feelings, rapid heart rate, and flushing. These data are essential to an understanding of mood changes in UR.

### *Depressive-Toned, Negative Affect*

A failure to invoke solid recovery rituals can lead to low positive affect and NA (which is not a clinical mood disorder); alternately, this can be described as a loss of positive affect. This in itself can be fatiguing (Lane & Terry, 2000). For the most part, however, fatigue is the consequence of hard training. It potentiates UR and results in activation of the hypothalamic-pituitary-adrenal axis and mood disturbance. Examples of ephemeral and typical self-reference in NA include: "I'm slow, fat, and out of shape. This whole year has been a joke. I've completely lost the respect of my teammates and I don't fit in. I'd be happier leaving to train somewhere else."

When one considers interventions for UR states, it is critically important to remember that depressive-toned self-talk is not a flag for an un-

derlying depression in an individual who might well have been happy one week previously. The diagnosis for a Major Depressive Disorder requires that the person have generally consistent symptoms for two weeks or more. Methods for helping a UR athlete can be adapted from treatments for major depression, but it should be remembered that although intervention modalities for depression (Beck, Rush, Shaw, & Emory, 1979) have been well validated, interventions for transient moods (such as depressive-toned NA among athletes who are UR) have not (see Gross, 1998, for a conceptualization of emotion regulation that can be used in UR).

For these adaptations, we prefer the broad, three-schema triad conceptualization of depression originally proposed by Beck (1967) to the narrow self-esteem focus of Lane and Terry (2000). Beck's negative cognitive triad includes a negative view of the self, a negative view of the world, and a negative view of the future.

We also urge caution when describing negative talk in UR athletes; most elite athletes are generally positive in their outlook and might only become negative when cortisol levels increase with hard training. It is possibly better to think of "depressed" athletes as showing relatively low positive affect, and it is inappropriate to even use the term *schema* when describing negatively toned but transient negative self-referents (Davis, 1979; Davis & Unruh, 1981). With mood destabilization in UR, the athlete may show short-term negative self-reference. Davis and Unruh (1981) found that persons who had been depressed for only a short period had an unstable view of self that lacked the robust pervasiveness of negative self-views held by long-term depressives. UR athletes who have been pessimistic for a short period are highly amenable to correcting cognitive distortion when challenged because they are not depressed. Although they may engage in negative self-talk, they may not have negative self-schemas. This point is often missed in the literature on NA (Rector, Segal, & Gemar, 1998).

### *Low Self-Efficacy*

Bandura (1977a, 1977b, 1991) was the first to propose that motivation, performance, effort, and persistence deficits and physiological stress reactions may be linked under the construct of low self-efficacy, a deficit in the judgment of one's ability to perform a desired behavior. Numerous reviews of sport research have supported this contention (e.g., Rudolph & McAuley, 1995; Schunk, 1995). Specific to the present model in which

psychobiological demand is key to the development of UR, Bandura (1991), Rudolph and McAuley (1995), Weidenfeld et al. (1990), and others have shown a negative correlation between the demand response (cortisol elevation) and self-efficacy levels. The more the individual feels competent to respond to stress, the less likely the same individual is to show elevated arousal (Rudolph & McCauley, 1995). The athlete who is in a state of UR *and* showing high cortisol (postexercise) can be predicted to have compromised self-efficacy going into the next training session. Although the authors attach causal significance to self-efficacy levels, our interpretation is simply that cortisol and self-efficacy can be expected to be inversely related in UR.

This reasoning is supported by convergent sources. For example, Martin and Gill (1991) found an inverse relationship between anxiety and self-efficacy in middle- and long-distance runners. Bozoian, Rejeski, and McAuley (1994) found a positive relation between mood and self-efficacy in acute-exercise participants. Lox, McAuley, and Tucker (1995) found a positive relation between self-efficacy and subjective well-being in HIV-1 patients.

In sum, the UR athlete with high preworkout cortisol can be expected to carry low self-efficacy into the training session and can be expected to report having to work harder than usual to complete the workout (Rudolph & McAuley, 1996).

### ***Learned Helplessness***

Research in the area of learned helplessness has proliferated for 30 years largely due to the enthusiasm of M.E.P. Seligman. Learned helplessness is a significant response to uncontrollability during stress. Early reviews documented neuroendocrine depletion in states of chronic learned helplessness (Depue & Monroe, 1978). The initial studies showed deficits in learned escape and avoidance after exposure to inescapable shock (e.g., Overmier & Seligman, 1967), whereas later studies show motivational, cognitive, and emotional response deficits to uncontrollability (Abramson, Metalsky, & Alloy, 1989; Abramson, Seligman, & Teasdale, 1978). In the revised model slower response rates, slower new learning, idiosyncratic pessimism, and increased NA are attributed to learned helplessness. Notwithstanding what Charles Costello once referred to as "horrendous" conceptual problems in the theory (Costello, 1978), we propose that the treatment strategies of the reformulation have relevance to timely intervention with the UR athlete.

### ***Arousal Changes With Learned Helplessness***

Our model is based on the strong empirical association among helplessness, pessimism, and PH. When athletes perceive that training outcomes are not contingent on effort or work, this may trigger PH, or conversely, PH may lead to pessimism. UR athletes in this mode will lose the connection between training and perceived success. At this point performance suffers doubly: from the physiology of UR and from pessimism and helplessness. Although the original learned helplessness model was largely silent on neuroendocrine changes that arise from helplessness, subsequent research has clarified that an association exists between elevated cortisol and helplessness responses in controls. Empirically, the *perception* of noncontingency is not consistently essential for the *effect* of noncontingency. Thus, an athlete would not have to possess conscious thoughts about noncontingency in order to start showing helplessness.

Numerous studies have related elevated cortisol levels to uncontrollability as seen in the following examples. In nondepressed surgery patients exposed to uncontrollable stress, salivary cortisol elevated as predicted (Croes, Merz, & Netter, 1993). Dess, Linwick, Patterson, Overmier, and Levine (1983) also showed data correlating controllability with reductions in serum cortisol. Importantly, the predictability of uncontrollable stress limits the extent of the adrenocortical response. (That is, understanding and expecting the nature of an applied training stress and predicting its physiological and psychological consequences can reduce the stress response.) Uncontrollability in the form of inescapable shock has further been related to reduced responsiveness in the nucleus accumbens in studies of intracranial self-stimulation (Zacharko, Bowers, Kokkinidis, & Anisman, 1983). This finding helps connect the arousal, uncontrollability, and mood data: reduced responses in the nucleus accumbens accompany lower levels of dopaminergic activity and lower mood. More recent research suggests that although it may be the noradrenergic and not dopaminergic activity that mediates learned helplessness responses (Tejedor-Real, Costela, & Gibert-Rahala, 1997), the issue is not settled. Still, the effect on mood is hypothesized to result from central brain responses to uncontrollability. Naturalistic investigations include unemployment stress in which loss of control and perceived helplessness in the long term and urinary cat-

echolamines in the short term have been found to increase with reactance to unemployment (Baum, Fleming, & Reddy, 1986).

### **Anxiety**

The literature has been clear for years that PH is associated with anxiety. Martens, Vealey, and Burton (1990) and others provided ample clarification of the difference between anxious moods and anxiety disorders in sport. NA is importantly related to anxiety (Mineka, Watson, & Clark, 1998). For instance, a person who has been anxious for about six months is roughly 12 times more likely to show depression (and presumably NA before that). Anxious states precede depressive ones more than the converse, and the presence of an anxiety disorder yields a 60 to 70% lifetime risk for major depression.

Several general points shape our intervention with UR athletes who are anxious.

- Negative anxiety can result from UR, or training/competitive results can enhance the likelihood that the athlete will have high arousal and poor recovery.
- Some recovery decisions are made as a consequence of anxiety.
- Anxiety can be facilitative and positive (Burton & Naylor, 1997; Edwards & Hardy, 1996). It can moderate not only other emotions but also cognitive processes such as concentration and attention.
- Poor self-efficacy can sometimes enhance anxiety (Weiss, Wiese, & Klint, 1989).
- Anxiety is multidimensional with interactive cognitive, physical, and self-confidence dimensions (Martens, Vealey, & Burton, 1990; Smith, 1989).

Cortisol shifts reveal a constant dynamic interaction between anxiety and biochemistry (Hackfort & Schwenkmezger, 1993). In early work, Frankenhauser (1969, as cited in Hackfort & Schwenkmezger, 1993) found that the adrenaline/noradrenaline ratio reliably indicated emotional stress. We propose that depressive-toned thinking, worry, and fear can both cause and be caused by poor recovery from training stress. Adrenocortical function is influenced by general well-being, fitness, and biological rhythm. As a result, the present intervention model requires simply that the psychologist ask whether this anxiety is the consequence of physiological changes associated with poor recovery *before* exploring the meaning

or the cognitive underpinnings of the anxious state.

### **Fear**

Fear is also associated with PH. At the heart of fear is elevated activation of the amygdala, hypothalamus, and brainstem culminating in elevated corticosteroid release together with behavioral and other physical responses (Davis, 1992; Stansbury & Gunnar, 1994). Fear can be triggered simply by conditioned responses or poor self-regulation during high arousal and UR. Seligman (1971) explained that fear is easily acquired in a single trial as an adaptive response to threat when there is high arousal (a condition in which humans are biologically prepared to be wary about their safety).

Fear and anxiety are different (Hackfort & Schwenkmezger, 1993). Fear is understood as a specific reflexlike defense and protection reaction. The source of danger in anxiety is not always readily understood. Stimulus recognition in fear is key. Lazarus (1991) found that both fear and anxiety are focused on a threat of future harm, but they differ in the level of uncertainty, with fear associating more than anxiety to danger that is concrete and sudden.

Conroy, Poczwardowski, and Henschen (2001) reviewed the Lazarus cognitive-motivational theory of emotion and found that emotional responses develop only when an individual perceives (and later anticipates) a change in the environment that may have an impact on goal attainment. Negative emotions, such as fear, will occur when the perceived or anticipated change is a decrease in the likelihood of achieving a goal. Birney, Burdick, and Teevan (1969) defined this decrease as failure, the nonattainment of a prescribed goal or achievement standard. Fear is associated with the potential for failure and its resultant consequences.

Birney et al. (1969) noted that when fear is generated from anticipated nonattainment, it stems from three strands of anticipated aversive experience: (1) a devaluation of one's self-estimate, (2) non-ego punishment, and (3) a reduction in one's social values.

The first experience that can generate fear, the fear of devaluation of the self-estimate, involves the risk of having to lower and thus change one's self-estimate. In a sport-achievement situation, if failure occurs, the athlete discovers that she is worse than she previously hoped or anticipated (Birney et al., 1969). The probability of failure, the

attributions associated with the failure, and one's view of the consequence of failure combine to predict the magnitude of the fear.

The second experience generating fear is "non-ego punishment" related to the anticipation of a loss of rewards that go along with goal attainment. An example would be losing a spot on a team or getting injured. Birney et al. (1969) pointed out that fears are directed toward the consequences of failure, and that a form of punishment is one of the consequences. Fear increases with the size of punishment and the probability of nonattainment.

The third anticipated experience that can generate fear is social devaluation. This is the expectation that one will lose value in the estimation of one's peers and close associates. A person who fears failure may anticipate being held in negative regard by others and fear the poor opinion of others. Again, the strength of this fear is proportional to the expected magnitude of social loss that accompanies nonattainment, the importance placed on the skill to determine social value, and the regard for the person who is making the judgment.

As adapted from Conroy (2000) and shown in table 9.1, Conroy et al. (2001) found 3 higher-order fears under which 7 higher-order themes and 22 lower-order themes may be identified. Table 9.1 lists the higher-order fears and the 10 higher-order themes that were associated with Birney's failure expectation factors. Specifically, Conroy and colleagues found that the self-estimate factor

included feelings of personal diminishment, poor ability, and low control. On Birney's fear of non-ego punishment factor were appraisals related to experiencing tangible losses, wasted effort, an uncertain future, or the loss of a special opportunity. Lastly, on the reduced social values factor the Conroy group found expectations of causing important people to lose interest in oneself, disappointing or upsetting others, or experiencing an embarrassing self-presentational failure.

It is important to be aware of these anticipatory cognitions when intervening with fatigued, UR athletes. In designing interventions, the psychologist will note behaviors associated with anticipated fear such as decreasing success-oriented efforts, keeping achievement standards vague so as to render performance measurement more ambiguous, participating in very easy or very difficult tasks so that little information can be gained from performance, and making excuses for nonattainment.

## Intervention With the UR Athlete

As outlined in figure 9.2, our method starts with assessing whether the athlete is underrecovered. If so, the sport psychologist promotes efforts to attain physical recovery while simultaneously assessing the psychological system along the nine lines established by the empirical base illustrated in figure 9.1 (p. 164), covering self-regulation and self-control, negative affect (NA) (with three

**Table 9.1 Composite of Fear of Failure Beliefs**

Higher-order fears	Appraisal
Fear of devaluing one's self-estimate	Personal diminishment Poor ability Lack of control
Fear of non-ego punishment	Wasted effort Tangible loss Crushed hope/lost opportunity Uncertain future
Fear of a reduction in social value	Others lose interest in me Others let down Embarrassing self-presentational failure

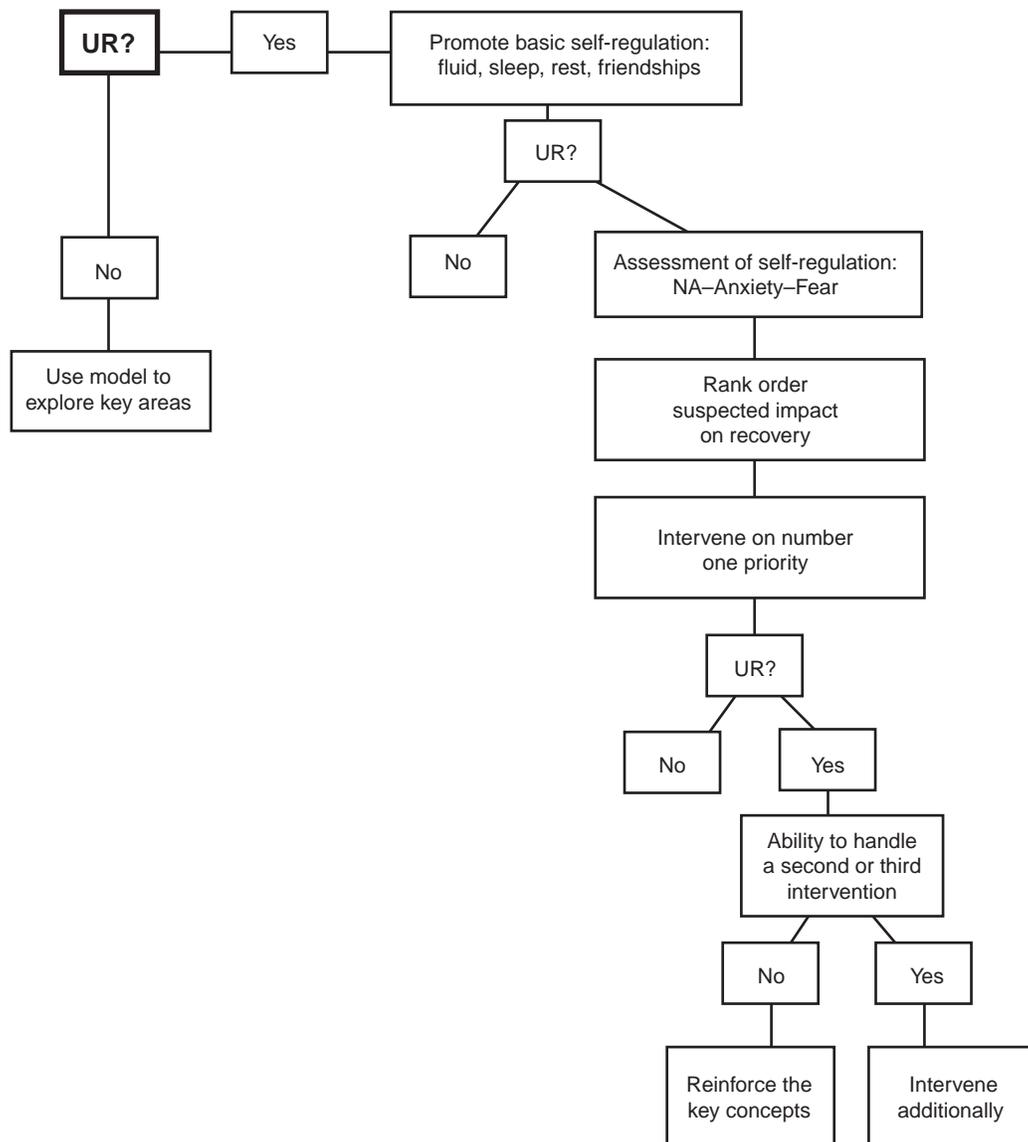
Adapted, by permission, from D.E. Conroy, 2000, *Using performance failure appraisals to conceptualize and assess fear of failure*. Unpublished doctoral dissertation, University of Utah, Salt Lake City, 12.

levels), anxiety (with two levels), and fear (with three levels).

With this model it is not necessary to test for elevated cortisol. By combining a knowledge of what the training template or competitive program has required with an assessment of the athlete's physical and psychosocial response to this program, it should not be difficult to determine when things are out of line.

The program is straightforward. As stated, after establishing that there is a reasonable basis for suspecting UR, promote the basics and assess the impact of UR on the psychosocial categories of UR response. Next, proceed to design an intervention based on the empirical literature

that we have reviewed. The "basics" consist of encouraging sleep, hydration, eating for recovery, and attention to important social relationships. These are addressed before dealing with any psychological issues that may have arisen as a consequence of the UR state. Carefully explore deficits in physiological, psychological, and social recovery efforts. Thus, before entertaining the full spectrum of, say, sadness or fear, encourage the athlete to add a nap or bigger meals or less extra-sport demand to the recovery regimen. The sport psychologist must remember that the person with a negative bias may be *speaking* with a negative tone only because she is underrecovered.



**Figure 9.2** The UR intervention decision tree.

## The Assessment Phase

In the assessment, within each category of UR response isolate possible questions for establishing where to intervene.

1. *Poor self-regulation.* Is the athlete missing important points in the workouts? missing significant opportunities for recovery? expressing anger inappropriately? missing deadlines? forgetting to do previously agreed tasks (such as goal setting or phoning home or rearranging academic coursework by phoning the university)? using the personal computer or TV for inordinate periods of time? having difficulty with responsible eating? unable to focus effectively when performing? showing declining/inconsistent performances?

2. *Negative affect, depressive thinking.* Is the athlete unnecessarily negative about training progress or competition results? exaggerating, overgeneralizing, self-criticizing, or showing other forms of cognitive distortion (look for the cognitive triad: self, present situation, future)? suddenly losing hope for the future? more irritable, more tearful, or showing more emotion than you think normal for him, given the circumstance? suddenly showing concentration and focusing problems? having sleep problems? not positive?

3. *Negative affect, learned helplessness.* Is the athlete expressing helplessness and saying, for instance, "I can't ever do this," or "We're weak completely because of me," or "This injury is going to affect everything from now on. It's all luck!"? feeling helpless about improving? stating that things are hopeless and unlikely to improve? unwilling to look at evidence of personal effectiveness?

4. *Negative affect, low self-efficacy.* Is the athlete saying, "I can't"? failing to set appropriate goals consistent with prior achievement? talking about quitting? not following through with set plans? showing a lack of belief that the goals are appropriate? showing poor persistence? shying away from planning? perceiving that more exertion is not possible?

5. *Anxiety-cognitive and somatic.* Is the athlete having difficulty with panic, high heart rate, or breathing control? tense and/or restless and keyed up and/or irritable? easily exhausted? fatigued? having concentration and focusing difficulty? having nausea at the time of performance? showing an inability to think clearly in key situations? yawning?

6. *Fear—three anticipation factors.* Is the athlete anxious about looking bad? losing financial support? losing parental and peer support? losing self-esteem? losing hope? losing opportunities? wasting time? any uncertainty? social expectations?

When assessing the UR responses using figure 9.2, the intervention decision tree, ask if the athlete needs to do anything on each level. Remember that, as Muraven and Baumeister (2000) have shown, calling attention to too many categories or concerns at once might exacerbate higher levels of distress and UR symptoms. Make a clinical judgment as to the areas having the greatest negative effect on training and focus there. The very nature (rapid onset and transience) of UR necessitates attention to the fact that the sport psychologist does not have several weeks to intervene; it is important to be strategic. Use both the response to training and the athlete's physiological recovery as guides for determining what to focus on with the UR athlete. Proposals by Gross (1998) are instructive relative to emotion regulation. He suggests assessing situational variables (ask if the athlete has to be in a current situation), situation modification (ask if the circumstance yielding UR mood can be altered), attention deployment (ask if the athlete could use distraction, become more focused, or direct attention differently), cognitive change (use cognitive-behavioral techniques), and response modification (ask if physiological, experiential, or behavioral responses can be altered).

## The Intervention Phase

Table 9.2 lists our basic UR intervention tools. Most can be applied to several UR responses.

These basic intervention tools would generally be described as cognitive-behavioral following accepted practice in empirical research. The interventions are based on relaxation and other methods designed to alter the cognitive and behavioral responses (in this case, to UR) by correcting cognitive distortion, developing new attributions for difficulty, refocusing attention, developing coping imagery, and developing positive reflections on stressful situations. While the literature in sport psychology can be traced to interventions that were first developed for depression, learned helplessness, anxiety, panic, and fear (see Barlow & Craske, 1994; Beck, Rush, Shaw, & Emory, 1979; Seligman, 1990; and Wolpe, 1982, respectively), references exist indicating

**Table 9.2 Cross-Situation Effectiveness for Interventions in UR**

Intervention	Self-regulation	Depressive thinking	Learned helplessness	Low self-efficacy	Anxiety: cognitive and somatic	Fear: devalued self	Fear: non-ego punishment	Fear: social value
<b>1. Physical recovery reset</b>	x	x	x	x	x	x	x	x
<b>2. Goal examination</b>								
Goal reviews	x	x	x	x	x	x	x	x
Goal resetting	x		x			x	x	x
<b>3. Relaxation promotion</b>								
Breathing—centering	x				x	x	x	x
<b>4. Imagery training</b>								
Coping imagery	x	x	x	x	x	x	x	x
<b>5. Cognitive methods promotion</b>								
<b>a. Attention</b>								
Attention control training					x			
Control distraction				x	x	x	x	x
Promote reframing		x	x	x	x	x	x	x
Control procrastination	x	x	x	x	x			
Limit overthinking	x	x			x	x	x	x
<b>b. Confidence</b>								
Positive self-talk/affirmations	x	x	x	x	x	x	x	x
Review successes	x	x	x	x	x	x	x	x
Correct cognitive distortion		x	x	x	x	x	x	x
<b>c. Self-reflection</b>								
Competitive/training reflections	x	x	x	x	x	x	x	x
Review coaching plan	x	x	x	x	x			
Journals and logs	x	x	x	x	x	x	x	x
<b>d. Balance</b>								
Promote perspective		x	x	x	x	x	x	x
Promote social skills and interaction	x	x	x	x	x	x	x	x

X indicates potential application.

where sport psychologists have used this clinical base for applications in sport. Three fundamental sources for mental skills training are provided by Hogg (1995), Martens (1987), and Orlick (1990). Numerous others address how one might intervene in the domains we isolate for UR, although none specifically addresses the need for empirical testing of interventions, and none isolates the problem of UR (e.g., Botterill & Patrick, 1996; Van Raalte & Brewer, 1997). As suggested, the review of Gross (1998) can be a useful guide in structuring interventions for nonclinical affect alteration.

Eight UR responses are laid out in the base of figure 9.1 (p. 164). These are the principal targets

for intervention and may be matched up with the five broad categories of intervention methods that are shown on the left column of table 9.2. The reader will notice that we have placed promotion of self-regulation on the top of table 9.2 as the ninth target for intervention, and we have linked it with physical recovery resetting, among the interventions. Thus, self-regulation is both a target for intervention and, when it is working well, a tool to promote recovery from UR. The intervention categories are physical recovery reset (using self-regulation), goal examination, relaxation promotion, imagery training, and cognitive methods promotion. Cognitive methods promotion is

divided into four subcategories (attention, confidence, self-reflection, and balance). These intervention categories and subcategories are described in the following sections.

### ***Self-Regulation for Promoting the Physical Recovery Reset***

The most likely targets for promoting physical recovery by employing self-regulation with UR athletes will be eating, hydration, sleep, and resetting social activities. Watch that the athlete is not sabotaging his training effectiveness with low self-discipline in these areas. For instance, most athletes know that excessive sun exposure can reduce energy for training. Thus, at a training camp in a warm climate, a failure to use adequate sunscreen or a failure to go indoors for an afternoon nap can be attributed to low self-regulation. Excessive alcohol on days off from hard training can also be attributed to low self-regulation and can completely undermine the desired training effect.

As well, self-handicapping can both cause and be caused by poor recovery efforts. The athlete who is in UR may be in a compromised emotional state and may therefore need help to ensure that she does not set up distractions or extreme (excessively high or excessively low) performance goals for the training session. Self-handicapping renders failure ambiguous (Baumeister, 1997) and may make it easier for the athlete to cope with any immediate underachievement, but it ultimately must be dealt with in order to promote overall goal achievement. Misguided persistence refers to some athletes' tendency to keep working while ignoring fatigue, soreness, and injury relative to recovery. Watch for this; assist and intervene appropriately.

Athletes who are prone to binge eating or drinking patterns will be at special risk when they are in UR. Pay attention to this risk by providing support, promoting self-awareness, and providing extra structure (e.g., curfews, team meals, and coach-accompanied grocery shopping when away).

### ***Goal Examinations***

Goal setting involves establishing objectives in order to provide direction and the means for accomplishment. Goals fall on a continuum from daily/short-term goals (a more detailed plan of action that is implemented and evaluated on a short-term basis) to long-term (established objectives that may not be as detailed) to dream (what you are striving for, the overall picture) (Orlick, 1990). Goals also fall into two types: out-

come and process goals. Outcome goals focus on the result, whereas process goals focus on the performance standard or the methods used to reach the desired outcome.

Goal setting can assist in increasing commitment, motivation, self-satisfaction, confidence, and optimal focus. In the case of UR athletes, identifying or reviewing goals can help them improve self-regulation and the related components that were presented earlier in the model. In order to reduce some of the demands placed on athletes, encourage them to assess and consequently reset some goals in light of new data as well as to enhance confidence and self-efficacy (see Weinberg & Gould, 1999; Williams, 1993).

### ***Relaxation Promotion***

Relaxation techniques, essential for the toolbox of the UR athlete, calm the mind and body, lessen muscle tension, lower the heart rate, and decrease subjective anxiety or perceived stress. Relaxation also helps the athlete cope with the consequences of poor self-regulation, negative affect, anxiety, and fear while facilitating recovery.

Williams (1993) divided relaxation techniques into two categories. The first involves muscle-to-mind techniques in which one trains one's sensitivity to muscle tension and learns to release that tension. Examples of this include breathing exercises and progressive relaxation, which involves contracting a specific muscle group and then relaxing it. Some of the most dramatic examples of psychological effects on performance relate to one's ability to relax. The second category of techniques involves the cognitive, or mental, approaches. These techniques work from mind to muscle, and include things like meditation and visualization. The choice may be determined by athlete preference (see Hogg, 1995; Martens, 1987; Orlick, 1990); each requires practice.

### ***Imagery Training***

Imagery can be explained as pictures that evoke sensory images and thoughts that stream through consciousness. The use of imagery involves all senses and emotions to create or re-create an experience (Weinberg & Gould, 1999; Williams, 1993). Imagery helps to provide motivation, assists with skill correction, and reminds athletes of the things that require focus. It helps to bolster flagging confidence and self-efficacy when one is struggling with UR. When using imagery, the athlete should first settle into a relaxed state before recruiting the senses and emotions.

Performance imagery, recovery imagery, and coping imagery are three techniques that may be used with UR athletes. Performance imagery involves mentally rehearsing performance skills. The UR athlete should use performance imagery away from the sport setting in order to recapture self-control and self-efficacy. Recovery imagery involves imagining the basic recovery goals being achieved or imagining oneself with the capacity to achieve goals beyond this (Botterill, Flint, & Levleva, 1996). Coping imagery allows athletes to visualize how they would like to think and feel despite the temporary state of UR and helps to build self-confidence.

### ***Cognitive Methods Promotion***

The ability to control thinking, attention, and concentration is an important element of optimal recovery. What the UR athlete thinks can affect the way he feels and acts. This is not linear; the components interact. For example, the fatigued UR athlete may have a disappointing performance; this poor performance may, in turn, build self-defeating thoughts. This interactive cycle can be initiated by thoughts, feelings, or behaviors. Once the athlete can master the cognitive component, she can develop positive feeling states and behaviors. There are a variety of cognitive control interventions. We have divided cognitive methods into four subcategories as follows: (1) thinking, attentional, and concentration control techniques; (2) confidence building strategies; (3) self-reflection methods using journals and logbooks; and (4) maintaining balance and perspective.

**Thinking, Attentional, and Concentration Control** Attentional control training has roots in meditation, Eastern religious practices, and martial arts. It involves the ability to direct attention and concentration to areas that are critical for recovery, performance, and maintenance of general well-being (Nideffer & Sharpe, 1978). With attention control the UR athlete will be able to regain effective focus when distracted or when engulfed by self-defeating thoughts. Controlling attention involves two different types of focus and four different attentional styles, with width and direction dimensions. Width describes either a narrow or a broad focus of attention; direction specifies whether attention is focused internally or externally. Athletes can benefit from learning to shift attention away from low motivation or negative thoughts while in the UR state.

A variety of thought- and attention-control techniques can assist athletes to deal with the

consequences of UR. These are well covered in the ample sport psychology literature that can be found elsewhere, but it should be said that it is our opinion that these techniques apply to UR. Athletes benefit from reviewing potential distractors and engaging in problem solving relative to these possible events. When distractions occur, athletes are less anxious having already come to terms with the inevitability of distraction. Thought stopping is used to eliminate negative and counterproductive thoughts. One method involves briefly focusing on an unwanted thought, then using a trigger to interrupt or stop the thought. This would be valuable for cognitions relating to negative affect, anxiety, and fear. A second cognitive method involves reframing. This is a process that encourages the athlete to find a different way to look at a situation in order to yield an optimistic framework for understanding the consequences of UR. Countering is another cognitive-behavioral method for changing self-defeating thoughts into self-enhancing thoughts. This is done through an internal dialogue that uses facts and reason to counter the belief and assumptions that led to the negative thinking. Each of these is an example of the full cognitive-behavior treatment literature on correcting cognitive distortions.

**Confidence Building** Self-confidence reflects the extent to which one embraces a belief in oneself, in one's power, and in one's abilities. Confidence can easily be lost in UR and with it one's self-efficacy, assertiveness, optimism, and composure. Confidence helps to arouse positive emotions and influences the way the UR athlete perceives performance; it is also a strong determinant of recovery behaviors and actions (Weinberg & Gould, 1999; Williams, 1993). Confidence building with the UR athlete can help to solidify the belief that the athlete can overcome the present situation in addition to managing the effects of UR as depicted in the model, such as low self-efficacy, learned helplessness, and fear.

Strategies suggested for building self-confidence have been adapted from Bandura (1977a, 1977b); only a few are presented here. The first technique involves reviewing past experiences. Highlight past successes, significant events, high-pressure situations, and obstacles that the athlete has overcome that remind him of his ability to succeed, thus reinforcing the capacity to do so. Another method involves verbal persuasion, or positive self-talk. Create, and review, an affirmation list of all the positive, self-affirming comments that the athlete has received from family, friends, teammates, and

coaches along with attributes that the athlete takes pride in. In addition to these two strategies you can instill a sense of confidence through vicarious experiences such as a motivational movie, video highlights, an inspirational book, or having the athlete imagine or visualize her own successful performances or those of someone she admires. These strategies may help to remind the UR athlete of what can be done despite temporary UR. Following the lead of education researchers, remember to reinforce the work ethic and the athlete's capacity to enjoy work. Some research suggests that such affirmation goes further in rebuilding persistence than does praise for the athlete's giftedness (Mueller & Dweck, 1998). If the athlete loves to compete, for instance, remember to reinforce competitive desire more than the image of being a winner.

**Self-Reflection** Self-reflection involves being aware of one's thoughts and feelings in the present state along with the thoughts about that state (Goleman, 1995). In UR it can provide a concrete, current database and help to increase the athlete's awareness (Brown & Lent, 1992). There is a logical distinction between being aware of feelings and acting to change them. However, it has been suggested that the two usually go hand in hand: to recognize a negative mood is to want to get out of it (Goleman, 1995).

Self-reflection enhances awareness. Encourage the athlete to reflect on competition and training regimes, which can be accomplished by keeping logbooks (see Orlick, 1990). This can help an athlete to identify the load he is trying to maintain as well as the effectiveness of his efforts. The idea is to do more than vent; simple venting tends to even prolong negative feelings. Instead, work to promote positive thinking, feeling, and action—sometimes by addressing how to get out of the negative situation (Lightsey, 1999). If self-reflections are not pleasant, they will probably not be very useful in altering negative affect (Fichman, Koestner, Zuroff, & Gordon, 1999). Strategies to help with self-reflection include self-expressive activities such as writing thoughts and feelings into a journal; using logbooks for concrete evidence of behavior; and communicating feelings and thoughts to a support network or a professional.

**Perspective and Balance** Helping an athlete to maintain balance and perspective is one of the most important aspects of any sport psychology endeavor (see Orlick, 1998). When training and

competitive pressures mount while the athlete is in UR, maintaining perspective can be difficult. With the UR athlete the demands (which may be somewhat self-inflicted) usually outweigh the coping resources. Perspective helps the athlete to see the big picture and to mentally reframe what is irrationally imposed on her (Botterill & Patrick, 1996). Useful approaches for maintaining perspective include staying rational and decisive. Staying rational involves focusing on things within one's control in addition to reflecting on what is irrational (and beyond one's control). Decisiveness, on the other hand, is a form of situational goal-setting tool that can help prevent becoming overloaded with thoughts, feelings, and possibilities. Encourage the athlete to stay in the here and now rather than get preoccupied with past occurrences or future possibilities (Botterill & Patrick, 1996). Help the athlete to get through the hard parts of training successfully without becoming overloaded, fearful, or overanalytical.

When we are balanced, it is possible to find beauty and meaning in our lives. The UR athlete will have difficulty here so keep it simple; facilitate becoming optimally aware of needs for achievement *and* relaxation, work *and* play, giving *and* receiving, intimacy *and* personal space (Orlick, 1998). The UR athlete must accept these dualities at a philosophical level before he can make use of their underlying principles. The emotional and psychological payoffs can have a profound effect on physiological recovery and state. In order for an athlete to train and perform to potential, he must also be capable of finding an adequate balance in his life.

## Case Examples

The following two intervention scenarios illustrate our approach. As suggested, use common sense when drawing from the list of UR interventions that have shown efficacy in clinical contexts. Before intervening with UR, make sure that the problems you address have a clear theoretical link to cortisol elevations and to the literature reviewed earlier. If they do not, then the problems are most probably not UR problems. Throughout we have repeatedly emphasized the importance of theory, but remember that without a dynamic and energized interaction between the psychologist and the athlete, the UR problems will not be resolved (Bachelor & Horvath, 1999).

### Scenario A: Background and Presenting Problems

Emily is a speed skater attempting to make the Canadian Junior Team. This season she moved from her hometown to a world-class center in order to train on long-track ice and expose herself to a situation that could enhance her development. She did not know many people in either the new city or the new training center, and it was the first time that she was living away from home. In prior years Emily competed in both short-track and long-track skating. Since this was the first time that she focused her energy into the long-track discipline, and was in an environment where she could train on long-track ice every day, she expected to improve at a fast pace. However, this did not happen.

Emily was going through a lot of new experiences all at once. Within her sport she was focused on a new discipline, her training load was increased substantially, and she was working with a new coach and teammates. Outside of sport she was living in a new city, working at a new job, and had moved in with a boyfriend for the first time. With all of these new experiences, there was potential for overload.

On reflection, Emily was unhappy with her achievement in the season. She knew that she had a lot of things to work on, but she didn't feel that she had progressed. She felt that the whole first part of the season went by without her thinking about what she needed to do. She lacked direction and focus. She was often distracted by the difficult relationship that she was having with her boyfriend. They broke up early in the season, but continued to live together due to financial constraints. She felt stressed constantly at home and was always so upset that she was never able to relax or have fun. She cried often and felt self-critical. These feelings were unfamiliar to her. She had no system of social support in her new environment.

Of possibly greatest significance from an overall coping perspective, she had difficulty adapting to the new training load. She often felt tired and fatigued and never felt that she was able to recover. She had difficulty concentrating on skating, as she would come to the oval upset and unmotivated. She also had difficulties identifying the focus, techniques, and intensity that were needed for long-track skating, and this compounded her dissatisfaction and unhappiness. She did not feel that she was able to push herself in skating, which made her feel angry and agitated coming off the ice.

She developed low confidence in her skating ability together with very low self-efficacy at skating competitions.

This athlete was simply overloaded by the combination of new environment, personal stressors, and increased training volume. She was never able to relax and get away from the demands placed on her.

#### *Indicators for UR*

This athlete is fatigued, has trouble sleeping, and shows NA and/or low positive affect with an inability to relax. She cries often and is upset, agitated, frustrated, and irritable. Emily is lacking focus and direction, is discouraged, and shows low self-esteem and low self-efficacy. All of these symptoms correlate with the substantial increase in training volumes.

#### *Interventions*

Strategize on the basic recovery techniques; promote self-regulation; teach several relaxation strategies; address cognitive control, attentional control, and confidence-building methods; explore her living situation; and look at process and outcome goals to help her reestablish direction and perspective.

### Scenario B: Background and Presenting Problems

Carter, a 19-year-old National Team swimmer, was happy, well-adjusted, and excited about his journey in sport. In the five years he had been swimming seriously, he had never known failure. He had set age-group records and made it to national prominence smoothly, without injury or incident.

In the year of the Olympic trials Carter was generally excited about his options and about the possibilities on the horizon. At training camps and meets, however, he would go through periods in which he would lose his extroverted, gregarious style and become withdrawn and serious—almost brooding. He would review his goals, his workout times, and his expectations to the point that they no longer energized him or helped him to focus. In fact, he would start to worry when he reviewed. After disappointing times he sometimes stopped talking altogether, withdrew from his friends, and paced on deck in an agitated, almost angry way. On one occasion he yelled at the coach and left the workout.

At other times he became argumentative and difficult to coach; he would object to doing workout sets, and he would not respond to suggestions on stroke improvement. At the conclusions of training camps or a week after competitions, regardless of the outcomes, he would return to being a positive contributor to the pool environment.

When he discussed these downturns with the sport psychologist, he seemed aware that they were predictable after about four days of exceptionally hard work or after the noise and expectations of a meet had started to take their toll. Before such a time he was happy and positive. When he began to feel stressed, he would awaken from sleep feeling not rested; the more upset he became, the more lax he was in protecting his sleep-onset ritual. He admitted to not being particularly careful, especially at training camps, about staying away from junk food dinners and snacks. Finally, he recognized that when stressed he did not smile at his friends and he became more serious about rising to the challenges before him. Carter reported some fear about letting people down (coach and parents, principally), and he said that for some reason he sometimes “just felt scared.”

All of these problems lasted only a few days with peak periods of emotionality lasting a few hours.

### ***Indicators for UR***

Carter gets fatigued and then shows fear of lost social value together with agitation, some anger, resistance to authority, and argumentativeness (these fall loosely into the fear and anxiety categories of the model). Additionally, under the heading of NA and/or low positive affect with decreased self-efficacy are worry, seriousness, brooding, disappointment and self-criticism, and the urge to withdraw. Finally, under poor self-regulation he loses diligence about getting to sleep and he lets himself withdraw, argue, and eat junk food. It is possible also that he isn't showing self-control in remembering the goal to remain balanced as opposed to focusing narrowly.

### ***Interventions***

Under the heading of anxiety, teach self-awareness and anger management when in high arousal. For the sleep and eating problems, promote better self-regulation. For the NA and reduced self-efficacy, offer some cognitive strategies for maintaining rational thinking about his goals and for regaining positive self-talk and a positive attitude when he is aware of slipping into brooding

and narrow thinking. He should be taught methods for maintaining social relatedness. Self-reflection and self-acceptance methods might help him to become aware of the problems with balance when he slips into UR.

## **Summary**

The recommended approach presented in this chapter represents basic, responsible sport psychology.

- Start with the empirical evidence that observed psychological UR problems relate in theory to the physiology of UR.
- Next, go through methods that have been reviewed in the literature and choose a set of two or three that can reliably impact on mood and self-regulation changes.
- Review the athlete's situation and decide together on a focus; this may be a short list given time and personal coping constraints. No athlete should become further overloaded by intervention, and none should risk compromising self-control by having to deal with too many strategies. This would be tantamount to complicating an injury by offering too much massage.
- Track the athlete's response to the methods used in order to intervene more effectively if UR recurs.

Remember that each person is unique and that each should be treated uniquely and patiently in the promotion of balance. By respecting the process as well as the relationship between professionals and performers, the sport psychologist can be humanly helpful instead of merely technically proficient. Make all that you can of your opportunities.

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