

I M.Sc. Sports Psychology

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Paper III : Psychological Preparation and Mental Skills Training

Unit : II – Stress in Sports

Dr.K.Kannadasan

Assistant Professor,

Department of Sports Psychology & Sociology,

Tamil Nadu Physical Education and Sports University, Chennai

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Stress has been identified as crucial in sport, *influencing performance as well as social functioning* (Jones & Hardy, 1990). **Increased anxiety and burn-out** are symptoms which have been associated to an inability to manage stress in sport, as well as decreased self-esteem and performance difficulties.

Types of Psychological Stress Affecting Athletes In-season

In 2006, Fletcher et al. categorized these types of stress as; **Competitive, Organizational and Personal**. Understanding this can help both coach and player build a big picture view of what is holding back, or helping, performance.

Competitive stressors

Competitive stressors are stressors related **directly to the sporting situation** the athlete finds themselves in. Essentially, they are the most obvious stressors and are most directly linked to what happens during training or in a game.

- Common competitive stressors include;
- Injury
- Returning from injury
- Pressures leading up to game day
- Pressures to perform during a big game
- The opposition
- Competition for places
- Issues with form and/or technique

Organizational stressors

- Organizational stressors are “an ongoing transaction between an individual and the environmental demands associated primarily and directly with the organization within which the athlete is operating” (Hanton et al.)
- Common organizational stressors include;
- Training issues (change in set up/coach, training content, training practicalities)
- Interpersonal conflict with teammates/coaches
- Perceived lack of support from organization
- Travel/accommodation issues

Personal Stressors

Personal stressors are the **environmental and personal demands** placed on the athlete directly associated with personal life events.

- Common personal stressors include;
- Lifestyle issues/changes (alcohol, sleep)
- Financial issues
- Traumatic life events
- Outside commitments (e.g. University degree for student-athletes)

Anxiety Management Training

- Anxiety management training involves an athlete's learning to employ relaxation strategies under stressful or arousing situations, including those producing emotions such as anger and anxiety.
- During anxiety management training, the athlete visualizes the stressful situation and allows the accompanying physiological arousal to be generated within himself or herself.
- Relaxation techniques, such as applied relaxation, progressive muscle relaxation, breath control or deep breathing, or meditation (outlined later), are then used by the athlete to reduce the symptoms of physiological arousal, such as increased HR, and blood pressure (BP).
- This may also promote management of behavioral responses such as loss of coordination, acts of aggression or frustration, "choking," or withdrawing from sport.

Applied Relaxation

- The aim of applied relaxation is to learn the skill of relaxation and develop the ability to apply it rapidly where needed, in any situation. Connected to this approach are six stages.
- **The first stage** is progressive muscle relaxation, a technique where muscles are contracted or tensed and subsequently relaxed, which is used to help facilitate relaxation and help the athlete reduce somatic anxiety symptoms.
- As the athlete becomes proficient in this skill and moves to **stage two**, muscle relaxation is promoted by relaxing the muscles without tensing them first.
- In **stage three**, the term *relax* is conditioned to bring on a relaxed state when spoken or thought by the athlete. A focus on breathing is also promoted in this stage, as well as a focus on passive concentration, which is an effortless, automatic, yet focused state of mind, similar to mindfulness.
- **Stage four** requires the athlete to learn to use the skill in real-life settings, relaxing appropriate muscles while engaging ones needed for activity.
- **Stage five** focuses on having an athlete relax while in a naturally occurring, non stressful situation. Breathing is the trigger of relaxation in this stage and is practiced 15 to 20 times per day.
- **The sixth and final stage** is called application training. The relaxation technique is implemented in a practice or training session and then in a low-stakes competition. The more frequently and completely it is implemented, the easier it will be for the athlete to use the strategy in a higher level of competition.

Arousal or Energizing Techniques

- Some research suggests that *athletes differ on the level of activation needed to produce optimal performance.*
- Various *levels of arousal are often conducive to high performance*, and it is paramount that the athlete perceives the arousal as beneficial (see Cognitive Control later in this section).
- While many stress management approaches take an arousal reduction focus, *strategies to increase arousal include imagery, self-talk, goal setting*, and cognitions or thoughts focused on heightening stimulation.

Autogenic training

- Autogenic training, first introduced in psychiatry by Johannes Heinrich Schultz, *involves a series of exercises designed to produce sensations such as warmth or heaviness, to help promote relaxation.*
- The program is based on six stages, each with a separate goal.
- The stages are learned and practiced in the following order: *heaviness in the extremities, warmth in the extremities, regulation of cardiac activity, regulation of breathing, abdominal warmth, and cooling of the forehead.*
- *Verbal cues* to the athlete can be *used to aid in prompting the sensations.*

Biofeedback

- Biofeedback training (BFBT) *can help control autonomic physiological stress responses, such as increased HR and BP.*
- It also has been *used to control anxiety disorders* as well as *anxiety connected to particular environments or contexts.*
- The premise behind biofeedback (BFB) is *for the athlete to become aware of how stress is manifested physiologically, such as changes in BP, HR, breathing, or muscle tightness, using different modes of objective feedback and monitoring.* With this increased awareness, athletes are better equipped to control their actions.
- With training, athletes become less reliant on the feedback, learning to control their physiological responses on their own.

Breath Control and Deep Breathing

- Breath control is a relaxation technique using the physical strategy of breathing.
- It is an effective and relatively easy stress management technique to apply.
- Irregularities in breathing, such as holding one's breath, hyperventilating, or random shallow breaths, can affect performance, potentially influencing coordination, focus, or rhythm, or can cause the athlete to feel unsettled, causing further stress.
- Breath control can be practiced by taking a slow, complete breath. Often, the lungs are conceptualized in three parts to aid in proper instruction of a slow, complete breath.
- The lower lungs are filled by pushing the diaphragm down and forcing the abdomen out.
- The middle portion of the lungs is then filled by expanding the chest cavity, expanding the rib cage.
- The upper lungs are then filled by raising the chest and rib cage.
- The breath is held for several seconds, and then a slow exhalation is made, taking approximately double the time taken for the inhalation process.
- Breath control is commonly used before a competition or during a natural break during the competition, as it is most practically applied during nonactive times.

Cognitive Affective Stress Management Training

- Cognitive affective stress management training is one of the most *comprehensive* *multimodal* *stress management programs used in sport.*
- This program is designed to teach the *athlete* *relaxation* *and* *cognitive* *skills* that can aid in *controlling* *physiological reactions and cognitive thought patterns.*
- Intervention consists of both *cognitive* *and* *physiological strategies*, including *relaxation skills*, *cognitive restructuring*, *and training* that is self-instructed and targets the physical and mental reactions to stress.
- The cognitive affective stress management program consists of *four distinct phases.*

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- In the **first phase**, the *pre-treatment assessment*, the *consultant uses an interview approach as well as questionnaires to assess the athlete's issues with stress*—namely, *what situations tend to produce stress, how the athlete responds to stress, and how the resultant stress affects performance and other behaviors*.
- The athlete's *cognitive and behavioral skills are assessed to determine existing resources*.
- This stage is integral in *understanding the unique aspects and situation of the particular athlete in question, allowing for a personalized program to be tailored for the athlete*.

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- The *next phase* is the *treatment rationale phase*, the aim of which is to *help the athlete better understand his or her stress responses through analysis of personal stress reactions and experiences*.
- Next, in the *skill acquisition phase*, athletes *receive training in muscular relaxation, cognitive restructuring, and self-instruction*.
- Muscular relaxation is taught under the guidelines of *progressive relaxation*, described earlier in this section.
- *Cognitive restructuring*, involves the *identification of irrational and destructive thoughts and the subsequent refocusing into more positive thoughts*.
- *Self-instruction training aims to teach athletes to provide themselves with specific instructions designed to improve concentration and promote problem solving*.

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- The **final stage is skill rehearsal**. In this stage, different levels of stress are induced by the consultant using mediums such as *videos or imagery*. The athlete is required to apply, and thus practice, *the coping skills he or she has learned in the program*.

Cognitive control

- Cognitive control involves *changes to cognitions that trigger, maintain, exacerbate, or reduce the stress and emotion response process.*
- Many cognitive control strategies were developed for cognitive therapy and *help athletes understand how thought processes are involved in the experience of stress.*
- Strategies to control unwanted or maladaptive thoughts include *cognitive restructuring, positive thought control, and attentional refocusing.*
- Cognitive restructuring involves helping an athlete to recognize and challenge irrational thoughts and to change these thoughts so that they become more adaptive.

- There are several steps in cognitive restructuring including *identifying automatic thoughts or beliefs that are irrational and negative, challenging or debating the rationality* of these thoughts, and then replacing these automatic thoughts with more positive and rational thoughts.
- *Positive thought control* involves *self-awareness to identify negative thoughts and replace them with more adaptive ones.*
- Positive thought control involves three elements: *using negative thoughts in a positive way, controlling negative thoughts, and training positive thoughts.*
- The aim is to have the athlete take a more positive orientation regarding the situation.
- *Attentional refocusing* involves shifting attention or focus from a stressful issue to one with fewer negative connotations attached to it.
- Some athletes may become too focused on their thoughts and stress reactions, causing them to become more anxious.
- To a large extent, attention refocusing attempts to shift attention from a self-focus to more of a focus on the features of the sporting environment.

Hypnosis

- Hypnosis involves getting the athlete to an altered state of consciousness in which he or she is relaxed and where perceptions, feelings, thoughts, or actions can be changed through suggestion.
- Although still somewhat controversial and misunderstood, hypnosis has been employed with athletes to help reduce anxiety and manage stress, as well as enhance other mental skills, focus attention, and increase confidence.
- Other stress management techniques such as relaxation and imagery or visualization are often used in conjunction with hypnosis, but the athlete is in a hypnotic state before they are applied.
- Typically, hypnosis is applied in four phases.
- The *induction phase* involves putting the athlete in a relaxed state and then inducing hypnosis using imagery and/ or attention-focusing techniques.
- In the *hypnotic phase*, athletes are given suggestions designed to target the issue at hand, most of which will be carried out once out of hypnosis.
- The *waking phase* consists of the athlete coming back to a conscious state, and the *posthypnotic phase* involves the athlete carrying out the suggestions given to him or her while in a hypnotized state. ***Athletes will benefit from hypnosis only to the extent to which they are able to be influenced on a subconscious level.***

Performance and Competition Planning

- performance and competition plans can help the athlete manage the stress that is inherent in competition.
- Such plans allow the athlete to take a proactive stance on stress, identifying ahead of time triggers of stress, and formulating a plan to counteract those issues.
- Planning allows many athletes to feel more in control of the situation and the self, thereby often decreasing further experiences of stress.
- It also provides a structure for them to incorporate other stress management and psychological skills into their preperformance and performance routines.
- Preperformance and performance plans have been suggested to promote proper focus and attention toward task relevant issues and help to attain the proper level of activation for performance, promoting both physical and mental readiness to perform.

Self-compassion

- Self-compassion interventions can help prevent athletes from becoming overly self-critical.
- Based on the work of psychologist Kristin Neff, self-compassion has three key components.
- **Self-kindness** involves being understanding and accepting toward oneself in instances of adversity as opposed to being overly self-critical.
- **Common humanity** is the acknowledgment that one's experiences are not isolating, as others also have these experiences.
- Finally, **mindfulness** involves a balanced perspective, keeping thoughts and feelings in a state of equilibrium, as opposed to over identifying with them.
- Strategies to promote self-compassion include writing, imagery, and psychoeducational components. Interventions are currently being adapted for sport.

Stress Inoculation Training

- Stress inoculation training (SIT), is based on the idea that if **an athlete is exposed to stress and learns to cope or deal with that stress in amounts that increase incrementally, an increased tolerance to stress will be obtained.**
- It is a multimodal approach using coping skills that *include creating productive and adaptive thoughts, images, and self-statements designed to benefit the athlete's psychological state, as well as performance.*
- It has been found to be effective in *reducing anxiety and enhancing sport performance.*
- SIT involves three stages. The **conceptualization stage** aims to raise the athlete's awareness on the effects of positive and negative thoughts, self-talk, and imagery. The **rehearsal stage** involves the athlete's learning to use a number of specific coping skills such as arousal control, imagery, and self-talk, which creates coping resources. The actual skills will depend on the specific needs of the athlete.
- Finally, the **application stage** involves the athlete's practicing the skills in increasingly stressful situations. A key feature of SIT is the gradual exposure to stress such that the athlete becomes "inoculated" and is less affected.
- The application begins with low-stress situations and gradually builds toward higher stress situations as coping skills become more advanced. Specific application procedures involve imagery, role-playing, and simulations of increasing perceived stressfulness.

Other Associated Psychological Skills

- There are a number of other psychological skills, such as **imagery, identifying strengths, and goal setting**, that can be incorporated into stress management programs.
- **Calming imagery, such as visualizing oneself in a safe, relaxing place, can be used to help reduce cognitive anxiety and arousal and to bring on physical relaxation.**
- Conversely, imagery can be used to energize and motivate by visualizing more stimulating, exciting places or scenarios.
- Imagery is often incorporated into athletes' preperformance and performance plans and routines.
- **Identifying strengths can help refocus athletes' thought processes toward what they can do rather than what they cannot do and assist in developing competition plans that maximize assets.**
- **Goal setting can help the athlete stay focused on the task at hand and keep attention on relevant issues.** Setting reasonable goals—ones that are measurable and challenging, yet attainable—can also help keep stress from becoming overwhelming. This is most commonly incorporated into preperformance and performance plans and routines.

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