Psychological Assessment and Intervention of Traumatic Sport Injuries

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- Psychological and sociological consequences of injury can be as debilitating as the physical aspects of an injury
- Sports medicine team must have an understanding of how psyche, emotions and feelings enter into the treatment process
- Each athlete will respond in a personal way
- Must insure physical and psychological healing before returning to play
- Role of personality and injuries must also be taken into consideration

Athletes Psychological Response to Injury

- Athletes deal with injury differently
  - Viewed as disastrous, an opportunity to show courage, use as an excuse for poor performance, escape from losing team
- Severity of injury and length of rehab
  - Short term (<4 weeks)
  - Long term (>4 weeks)
  - Chronic (recurring)
  - Terminating (career ending)

- No matter the length of time, three reactive phases occur
  - Reaction to injury
  - Reaction to rehabilitation
  - Reaction to return to play or termination of career
- Other matters that must be considered are past history, coping skills, social support and personal traits
- Injury may impact a number of factors socially and personally and emotions may be uncontrollable

The Athlete and the Sociological Response to Injury

- Following long term rehabilitation the athlete may feel alienated from the team
- Views of involvement and interaction with coaches and athletes may be disrupted
- Relationships may become strained
  - Athletes may pull away as injured athletes are a reminder of potential harm that can come to them
  - Friendships based on athletic identification may be compromised
  - Remaining a part of the team is critical - less isolation and guilt is felt

Athlete and Social Support

- Support can be supplied by organization or others that have gone through similar rehab
  - Need to prevent feeling of negative self-worth and loss of identity
  - Stress the importance of remaining a teammate
- Athlete/Athletic trainer relationship is key
  - Must be developed, strengthened and maintained
- Sports specific drills must be incorporated in rehab (ideally during practice)
  - Opportunity for reentry into the team, increases levels of effort, may allow athlete to gain appreciation of skills necessary to return to play

Athletic Trainer's Role in Providing Social Support

- Athlete should get the perception that the ATC cares
  - May have a huge impact on success of rehab process
  - Communication is critical
  - ATC should take an interest in the athletes and their well-being before injuries even occur

- The ATC should do the following
  - Be a good listener
  - Be aware of body language
  - Project a caring image
  - Find out what the problem is
  - Explain the injury to the athlete
  - Manage the stress of the injury
  - Help the athlete return to competition

Predictors of Injury

- Some psychological traits may predispose athlete to injury
  - No one personality type
  - Risk takers, reserved, detached or tender-minded players, apprehensive, over-protective or easily distracted
  - Lack ability to cope with stress associated risks
  - Other potential contributors include attempting to reduce anxiety by being more aggressive, continuing to be injured because of fear of failure, or guilt associated with unattainable goals

Stress and the Risk of Injury

- Stress = positive and negative forces that can disrupt the body's equilibrium
  - Tells body how to react
- A number of studies have indicated negative impact of stress on injury particularly in high intensity sports
  - Results in decreased attentional focus, create muscle tension (reduces flexibility, coordination, & movement efficiency)

- Living organisms have the ability to cope with stress - without stress there would be little constructive or positive activity
- Individual engages in countless stressful situations daily
  - Fight or flight response occurs in reaction to avoid injury or other physically and emotionally threatening situations

Physical Response to Stress

- Stress is a psychosomatic phenomenon
  - Physiologic responses are autonomic, immunologic and neuroregulatory.
  - Hormonal responses result in increased cortisol release
  - Negative stress produces fear and anxiety
    - Acute response causes adrenal secretions causing fight or flight response
    - Adrenaline causes pupil dilation, acute hearing, muscle responsiveness increases, increased BP, HR and respiration

- Two types of stress -- acute and chronic
  - Acute - threat is immediate and response instantaneous; response often entails release of epinephrine and norepinephrine
  - Chronic - leads to an increase in blood corticoids from adrenal cortex
- When athlete is removed from sport because of injury or illness it can be devastating - impact on attaining goals
- Athlete may fear experience of pain and disability
  - Anxiety about disability,
  - Injury is a stressor that results from external or internal sensory stimulus
  - Coping depends on athlete's cognitive appraisal

Emotional Response to Stress

- Sports serve as stressors
  - Besides performance peripheral stressors can be imposed on athlete (expectations of other, concerns about school, work, family)
  - Coach is often first to notice athlete that is emotionally stressed
    - Changes in personality and performance may be indicator of need for change in training program
    - Conference may reveal need for additional support staff to become involved

- Injury prevention is psychological and physiological
  - Entering an event angry, frustrated, discouraged or while experiencing disturbing emotional state makes individual prone to injury
  - Due to emotion, skill and coordination are sacrificed, potentially resulting in injury
- Athletic trainers must be aware of counseling role they play
  - Deal with emotions, conflicts, and personal problems
  - Must have skills to deal with frustrations, fears, and crises of athletes and be aware of professionals to refer to

Overtraining

- Result of imbalances between physical load being placed on athlete and his/her coping capacity
- Physiological and psychological factors underlie overtraining
- Can lead to staleness and eventually burnout

- Staleness
  - Numerous reasons including, training to long and hard w/out rest
  - Attributed to emotional problems stemming from daily worries and fears
  - Anxiety (nondescript fear, sense of apprehension, and restlessness)
    - Athlete may feel inadequate but unable to say why
    - May cause heart palpitations, shortness of breath, sweaty palms, constriction of throat, and headaches
  - Minimal positive reinforcement may make athlete prone to staleness

- Symptoms of Staleness
  - Deterioration in usual standard of performance, chronic fatigue, apathy, loss of appetite, indigestion, weight loss, and inability to sleep or rest
  - Exhibit high BP and pulse rate at rest and during activity and increased catecholamine release (signs of adrenal exhaustion)
  - Stale athletes become irritable and restless
  - Increased risk for acute and overuse injuries and infections
  - Recognition and early intervention is key
    - Implement short interruption in training
    - Complete withdrawal results in sudden exercise abstinence syndrome

- Burnout
  - Syndrome related to physical and emotional exhaustion leading to negative concept of self, job and sports attitudes, and loss of concern for feeling of others
  - Burnout stems from overwork and can effect athlete and athletic trainer
  - Can impact health
    - Headaches, GI disturbances, sleeplessness, chronic fatigue
    - Feel depersonalization, increased emotional exhaustion, reduced sense of accomplishment, cynicism and depressed mood

Reacting to Athletes with Injuries

- Athletic trainers are not usually trained in areas of counseling and may require additional training
- Respond to individual not the injury
- During initial treatment stages, emotional first aid will be required
  - Comfort, care and communication should be given freely
- Sports medicine team must be understanding and be prepared to answer athlete's questions

- The Catastrophic Injury
  - Permanent functional disability
  - Intervention must be directed toward the psychological impact of the trauma and ability of the athlete to cope
  - Will profoundly affect all aspects of the athlete's functioning

Psychological Effects of Injury on the Athletic Trainer

- ATC may also be emotionally affected
- ATC must make decisions regarding care and management of injury based on training
- Emotional attachment can not cloud judgment
- Must remain detached until a later time
- Outside counseling may be sought at a later time in order to assist in coping with the situation

Psychological Factors of Rehabilitation Process

- Successful rehab plan takes athlete's psyche into consideration
- Plan involving exercise and modalities must also include rapport, cooperation and learning
- Rapport
  - is the existence of mutual trust and understanding (athlete must believe therapist has best interests in mind)

- Cooperation
  - Athlete may begrudge every moment in rehab if process is moving slowly
  - Blame may be placed on members of the staff
  - To avoid problems, athlete must be taught that healing process is a cooperative undertaking
  - Athlete must feel free vent and ask questions,
  - Athlete must also take responsibility in process
  - Patience and desire are critical in the rehab process
  - To ensure maximal positive responses athlete must continually be educated on the process
  - Provide information in layman's language and commensurate with athlete's background

Psychological Approaches During Various Phases of Rehab

- With changes in modalities and exercises, psychological issues must be addressed
- Immediate Post Injury
  - Fear and denial reign - athlete may be experiencing pain and disability
  - Emotional first aid must be administered
  - Complete diagnosis and explanation must be provided
  - Athlete must know and understand process and outcome

- Early Postoperative Period
  - Following surgery athlete becomes disabled individual and full explanations must be provided
  - Athlete must maintain aerobic conditioning
- Advanced Postoperative or Rehabilitation Period
  - Conditioning should continue to train unaffected body parts
  - Confidence must be built gradually and athlete must feel in control
  - Positive reinforcement is critical and milestones must remain realistic
  - Rehab must make transition to more sports specific

- Return to Activity
  - Athlete generally returns physically ready but not psychologically (level of anxiety remains)
  - Tension can lead to disruption of coordination producing unfavorable conditions for potentially new or current injuries
  - To help athlete regain confidence
    - Progress in small increments
    - Instruct athlete on systematic desensitization

Goal Setting

- Effective motivator for compliance in rehab and for reaching goals
- Athletic performance based on working towards and achieving goals
- With athletic rehabilitation, athletes are aware of the goal and what must be done to accomplish
- Goals must be personal and internally satisfying and jointly agreed upon

- To enhance goal attainment the following must be involved
  - Positive reinforcement, time management for incorporating goals into lifestyle, feeling of social support, feelings of self-efficacy,
- Goals can be daily, weekly, monthly, and/or yearly

Mental Training Techniques

- Long been used to enhance sports performance and useful during rehabilitation
- Serious emotional disabilities should be referred to professionals
- A series of techniques are available to help cope

- Quieting the Anxious Mind
  - Due to mental anxiety suffered, methods can be used to deal with fear of pain, loss of control, and unknown consequences of disability
  - Meditation
    - Meditators focus on mental stimulus
    - Passive attitude is necessary, involving body relaxation
  - Progressive Relaxation
    - Extensively used technique
    - Awareness training in tension and tension's release
    - Series of muscle contractions and periods of relaxation

Cognitive Restructuring

- Some engage in irrational thinking and negative self-talk
- Can hinder treatment progress
- Two methods are used to combat
  - Refuting Irrational Thoughts
    - Deals with persons internal dialogue
    - Rationale emotive therapy developed by Albert Ellis
    - Basis is that actual events do not create emotions - self talk after the fact does (causes anxiety, anger and depression)

– Thought Stopping

- Excellent cognitive technique used to overcome worries and doubts
- Injured athlete often engages in very negative self talk
- Thought stopping involves focussing undesired thoughts and stopping them on command
- Immediately followed by positive statement

Imagery

- Use of senses to create or recreate an experience in the mind
- Visual images used in rehab process include visual rehearsal, emotive imagery rehearsal, and body rehearsal
- Visual rehearsal involves coping and mastery rehearsal
  - Coping rehearsal: visualize problem and way to overcome and be successful
  - Mastery rehearsal: visualize successful return from practice to competition activities

- Emotive rehearsal: aids athlete in gaining confidence by visualizing scenes relative to confidence, enthusiasm, and pride
- Body rehearsal: visualization of body healing self (athlete must understand injury)

Improving Healing Process

- Important for athlete to be educated
- Once situation is understood, athlete is instructed to imagine it taking place during therapy

Techniques for Coping with Pain

- Athlete can be taught simple techniques to inhibit pain
- Should never be completely inhibited as pain serves as a protective mechanism
- Three methods can be used to reduce pain
  - Tension Reduction
  - Attention Diversion
  - Altering Pain Sensation

- Tension Reduction
  - Work to reduce muscle tension associated with anxiety, pain-spasm-pain cycle
  - Increased tension, increases pain
- Attention Diversion
  - Divert attention away from pain and injury
  - Engage athlete in mental problem solving
  - Also divert pain by fantasizing about pleasant events
- Altering the Pain Sensation
  - Imagination is very powerful, and can be positive and negative
  - Can utilize imagination to alter pain sensation

Mental Disorders

- Occasionally, athletic trainer must deal with athletes with mental illness
- Must be able to recognize when an athlete is having a problem and make referral
- Mental illness is any disorder that affects the mind or behavior
- Classified as neurosis or psychosis
  - Neurosis:
    - unpleasant mental symptom in individual with intact reality testing
    - Symptoms include anxiousness, depression or obsession with solid base of reality

- Psychosis
  - Disturbance in which there is disintegration in personality and loss of contact with reality
  - Characterized by delusions and hallucinations

- Mood Disorders
  - Range from happiness to sadness
  - Pathological when it disrupts normal behavior, is prolonged and accompanied by physical symptoms (sleep and appetite disturbances)
  - Depression is also common
    - Unipolar - feeling move from “normal” to helplessness, loss of energy, excessive guilt, diminished ability to think, changes in eating and sleeping habits, and recurrent thoughts of death

- Bipolar (manic depression) - goes from exaggerated feelings of happiness and great energy to extreme states of depression
- Treatment is individualized and might include psychotherapy and antidepressant medication

– Seasonal Affective Disorder
  - Characterized by mental depression during certain points of the year
  - Occurs primarily in winter months due to decrease in sunlight
  - Symptoms include fatigue, diminished concentration, daytime drowsiness
  - Four times more common in women
  - Treated with light therapy stress management, antidepressants and exercise

- Anxiety Disorders
  - Contributes to 20% of all medical conditions
  - Anxiety can cause a variety of physiological responses
  - Anxiety is abnormal when it begins to interfere with emotional well-being or normal daily functioning
  - Panic Attacks
    - Unexpected and unprovoked emotionally intense experience of terror and fear
    - Physiological responses similar to someone fearing for life
    - Tend to occur at night and run in families
    - Behavior modification and meds can be used to treat

- Phobias
  - Persistent and irrational fear of specific situation, activity, or object that creates desire to avoid feared stimulus
  - May include fears of social situations, height, closed spaces, flying
  - Symptoms include increased heart rate, difficulty breathing, sweating and dizziness
  - Treatment includes behavior modification, anti-depressants and systematic desensitization

Personality Disorders

- Everyone has own differences in personality traits
- In the case of disorders, it is pathological disturbance in cognition, affect, interpersonal functioning or impulse control
- Generally long in duration and traceable to some event
- Treatment may involve psychotherapy and medications

- Paranoia
  - Having unrealistic and unfounded suspicions about specific people or things
  - Person is constantly on-guard and cannot be convinced that suspicions are incorrect
  - Overtime resentment develops and ultimately requires the use of medical care
- Obsessive-Compulsive Disorder
  - Combination of emotional and behavioral symptoms
    - Recurrent, inappropriate thoughts, feelings, impulses, or images arising from within
    - Cannot be neutralized even though they are known to be wrong

- Engage in unreasonable repetitive acts which disrupts normal daily functioning
- Behavioral psychotherapy attempts to restructure environment to minimize tendencies to act compulsively
- Medication is also used

- Post-Traumatic Stress Disorder
  - Re-experiencing of psychologically traumatic events
  - May experience numbing of general responsiveness, insomnia, and increased aggression.
  - May persist for decades
  - Group therapy is useful for treatment