

THE PSYCHOLOGICAL ASPECTS OF INJURY IN SPORT

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ABSTRACT

Athletes participating in sport are exposed to a relatively high injury risk. Age, gender, injury history, body size, local anatomy and biomechanics, aerobic fitness, muscle strength, and psychosocial factors as well as general mental ability are factors in the predisposition to injury. The main focus of the evaluations and prevention programs is also on the treatment of physical injuries and treatments of psychiatric/psychological issues have been addressed at a minimum. However Psychological issues of injury for sport are an essential aspect of successful sports performance at all times. It includes psychological variables as predictors of injury occurrence, athlete's psychological response to injury, psychological aspects of the rehabilitation process, and also psychological readiness to return to competition. With regard to the psychological response to injury, a few factors such as emotions and behaviour of the injured athletes have been identified. Studies on the psychological aspects of the rehabilitation process have indicated that injured athletes need a number of approaches that can be implemented such as communication skills and motivation techniques. Nevertheless, injured athletes need to consider some psychological readiness factors to return to competition like anxiety, fear and loss of confidence.

KEYWORDS: Sport, injury, psychological, predictors, response, rehabilitation

INTRODUCTION

As sports participation increases, so does the incidence of both acute and over use sports-related injuries. All these injuries do not need only medical treatments but also psychological factors. In order to fully understand the injury occurrence/recovery process, both psychological and physiological factors must be considered (Dunn & Syrotuik, 2003).

Many studies have shown the impact and influence of psychological characteristics of athletes in determining risk of injuries and rehabilitation.

Those risk factors are usually classified in to extrinsic and intrinsic variables. Age, gender, injury history, body size, local anatomy and biomechanics, aerobic fitness, muscle strength, physiological and psychosocial factors as well as general mental ability are factors in the predisposition to injury. One of the most important aspects in sports injury rehabilitation is the

psychological aspect (Mohdnor, 2001).which include psychological variables as predictors of injury occurrence, athlete's psychological response to injury, psychological aspects of the rehabilitation process, and also psychological readiness to return to competition. Among the factors already studied are the stress responses, personality, and history of stressors, coping resources, trait anxiety, self-esteem, and mental toughness (Brewer 2009). Just as relatively small changes in behaviour in sport can significantly impact performance, so do small changes in behaviour significantly impact rehabilitation.

Generally Studies on the rehabilitation process have indicated that injured athletes need a number of approaches that can be implemented such as communication skills and motivation techniques. In relation to this, injured athletes need to consider some psychological readiness factors to return to competition like anxiety, fear and loss of confidence which subsequently may affect their performance when they return to competition (Mohdnor, 2001).pain has been studied in relation to injury and is often associated with potential or actual tissue damage (Tenenbaum , 2006). Thus it is also important to understand how athletes typically react to injury as well as the psychological factors that might influence this response. Accordingly, research in the sport psychology field is needed to examine the impact and association between the expectation of pain and anxiety in the athletic environment.

1.2 OBJECTIVES

The aim of this study is to examine the existing practices of preparing athletes in light of pain and anxiety after injury so as to understand and analyze some of the possible psychological influencing factors for high athletic performance and success during rehabilitation of injury.

CHAPTER II: LITERATURE REVIEW

2.1 Pain in Sport

In the daily course of the coaches, it is must to deal with athletes' pain in order to treat and manage their sports-related injuries. Disregarding an athletes' pain in the injury-management process can retard rehabilitation. Pain is often described as an inevitable part of certain athletic endeavours (Cooper, 1981). For many events, pain is expected, and even encouraged, as it is associated with improvement and productivity (Guyot, 1991). Pain has been defined as

an unpleasant sensory and emotional experience arising from actual or potential tissue damage or described in terms of such damage...[Pain includes not only the perception of an uncomfortable stimulus but also the response to that perception (Thomas, 1997, p. 1387).

2.2 PSYCHOLOGICAL FACTORS AND SPORT INJURIES

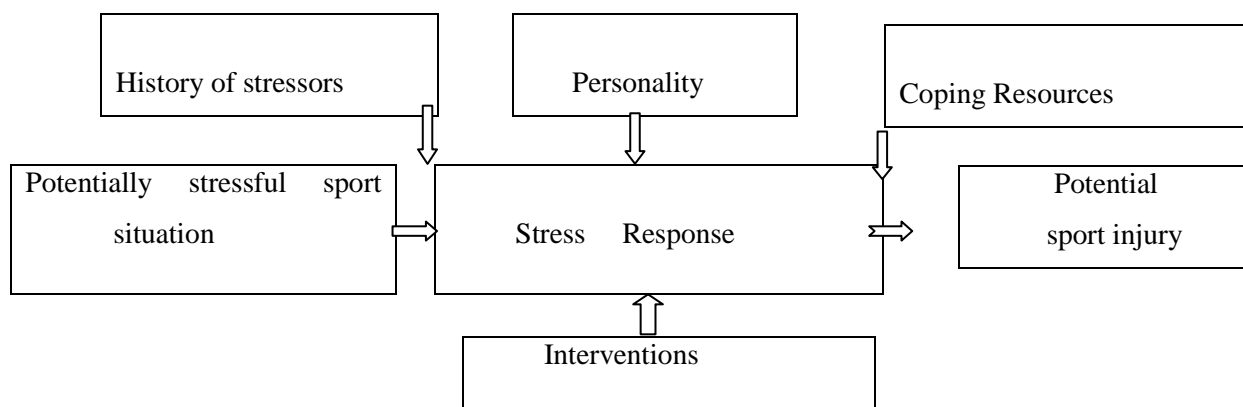
Research that has examined the influences of psychological factors on injury risk has stated that athletes who experience high levels of stress are exposed to a greater risk of attaining a sport injury (Ivarsson and Johnson, 2010; Rogers and Landers, 2005). Athletes can be expected to experience a variety of emotional responses and stress upon being injured.

For many athletes, exercise and physical activity serves as a primary coping mechanism and outlet for dealing with psychological issues. In these athletes, an injury may result in even greater emotional upheaval. Emotional responses to injury include sadness, feelings of isolation, irritation, lack of motivation, frustration, anger, alterations in appetite, sleep disturbance, and feeling disengaged. Problematic emotional reactions occur when symptoms do not resolve or

worsen over time, or the severity of the symptoms seems excessive relative to other injured athletes.

Depression especially is a significant warning sign. It magnifies other emotional responses and impacts recovery from injury. A number of variables, however, have been examined occurrence in sport. Early work as potential predictors of injury accounts the types of athletes thought to be prone to injury and suggested that intrapersonal conflict, anxiety, depression, guilt and low self-confidence were important contributors to injury occurrence (Sanderson, 1977). Subsequent research has taken a variety of other factors into account, and the manner in which they interact has been summarized by Andersen and William (1988b).

Figure 1 A stress-related model of Sports Injury (based on Andersen & Williams1988)



2.2.1 The Stress Responses

A few studies have tested parts of the Williams and Andersen model in elite soccer populations. For example both Johnson and Ivarsson (2011) and Ivarsson et al. (2012) found that both personality (e.g. anxiety) and stress (e.g., negative life event stress and hassle) variables predicted sport injuries. This response consists of a cognitive component and a psychological/attention component, both exerting reciprocal influences on each other. Evaluations of the demands inherent in the sports situation, the resources available to meet these demands and the consequences of successful versus unsuccessful coping produce physiological tension and attention deficit. At the same time, the physiological and attention changes influence the nature of the ongoing evaluation. If the perceived threat is sufficiently strong or recurrent, this response may increase the risk of injury by disrupting co-ordination and flexibility (Tenenbawn, klund 2007).

2.2.2 Personality

Very few reliable relationships have been demonstrated between personality and sports injury. However, certain variables are worthy of consideration: for example, several investigations have reported connections between injury occurrence and scores on Factor I (tender-minded vs. tough minded) and Factor A (reserved vs. outgoing) of Cattell's 16 PF (Personality Factor) Questionnaire. Players scoring near the tender-minded and reserved ends of these scales may be more prone to injury than their more tough-minded and outgoing peers.

Similarly, low scores on measures of general self-esteem have been implicated as a precursor to injury. Hardy & Crace (1991) have also reported interesting findings concerning the interaction of personality and the type of injury likely to be experienced. Their data suggest that acute injuries are frequent among competitors with extraverted tendencies and a low sense of responsibility. And Overuse injuries are frequent among competitors with high level of dedication and responsibility (Rodin & Salovey, 1989; Grove, 1993).

2.2.3 History of Stressors

The most frequent finding has been a positive association between measures of stress from major life events and incidence of injury. This relationship appears to be strongest in contact sport. There has also been speculation that 'daily hassles' experienced by the athlete may be positively related to chance of injury (DeLongis, A., S. Folkman & R. S. Lazarus. 1988).

2.2.4 Coping Resources

The final general class of mediators in the stress-injury relationship is the nature of the athlete's coping resources. These consist of a variety of behaviours and interpersonal networks which aid the individual in dealing with life's positive and negative events (Andersen and Williams, 1988). Research indicates that social support systems are particularly important coping resources, both in terms of general health and sport injury. These systems consist of coaches/team-mates, partners/spouse, friends/relatives and supervisors/co-workers that provide emotional support to the individual.

The quality of the social support system will be determined by the extent to which the athlete believes these people care about him/her, trusts and confides in them and can access them in times of need. Studies indicate that high levels of social support are associated with low incidences of injury, and that low levels of social support are associated with high incidence of injury (Tenenbawn,etal 2007) .

2.3. PSYCHOLOGICAL RESPONSE TO INJURY

Athletes can be expected to experience a variety of emotional responses and stress upon being injured. There is no predictable sequence of emotional reactions to athletic injury. For many athletes, exercise and physical activity serves as a primary coping mechanism and outlet for dealing with psychological issues. In these athletes, an injury may result in even greater emotional upheaval. Emotional responses to injury include sadness, feelings of isolation, irritation, lack of motivation, frustration, anger, alterations in appetite, sleep disturbance, and feeling disengaged. Problematic emotional reactions occur when symptoms do not resolve or worsen over time. Depression magnifies other emotional responses and impacts recovery from injury. It is essential to

- Promote monitoring of emotional reactions by the athletic care network
- Facilitate provision of psychological support services as needed
- Educate athletes and coaches regarding emotional reactions to injury and recovery
- Promote utilization of a supportive social network in injury recovery

Athletes are thought to proceed through a sequential series of stages (e.g., denial, anger, bargaining, depression, and acceptance) after becoming injured. Unfortunately, research did not support such a characterization of athletes' responses to sport injury. Some athletes *do* exhibit components of a grief reaction after sustaining an injury and athletes generally *do* display more favorable psychological responses with the passage of time following injury, but predictable, stage-like sequence of responses consistent across athletes simply has not stood up to scientific scrutiny (Brewer 2009) .

2.3.1 Cognitive Responses

The way in which athletes cognitively appraise or interpret their injuries contribute substantially to their psychological adjustment to the challenges posed by the injuries. Injuries perceived as threatening to one's sense of self- and well-being are likely to produce more adverse psychological consequences than injuries construed as neutral, benign, or, in rare cases, beneficial occurrences. For example, athletes who perceive their injuries as resulting in the loss of a self-defining activity are more likely to experience devastating emotional reactions (e.g., depression) than athletes who interpret their injuries as means of escaping the pressures of unwanted sport involvement (and consequently experience thinly disguised feelings of liberation and relief (Brewer 2009) Among the common cognitive responses to sport injury are (a) decreased self-esteem; (b) attribution activity; and (c) use of coping strategies. Following injury, athletes tend to experience a drop in evaluations of their self-worth. They readily make attributions regarding the cause(s) of their injuries, some involving factors internal to themselves (e.g., somatic weakness, overtraining) and some pertaining to factors external to themselves (e.g., field conditions)

2.3.2 Emotional Responses

Among the more common emotions experienced by athletes with injuries are anger, confusion, depression, fear, and frustration. In general, negative emotions tend to increase immediately following injury and decrease over the first month post-injury, presumably as athletes adjust to their conditions and recover health and function. Emotional disturbance may persist, when the athletes have severe injuries or encounter obstacles in the recovery progress. This initial numbness is followed by a period of heightened emotionality in which feelings of isolation/loneliness, anger/resentment, depression and anxiety may be experienced (Rotella & Heyman, 1993). The athlete may become irritable and/or self-critical at this time, and there may be a loss of interest in usual activities. The athlete may also question the value of treatment and fail to comply with recommended rehabilitation procedures.

2.3.3 Behavioral Responses

The ways in which athletes respond behaviorally to injury are closely tied to their cognitive and emotional reactions. For example, when athletes cope cognitively with their injury situation by focusing their attention on the tasks of their rehabilitation program, their behavior may be characterized by information-seeking and vigorous pursuit of rehabilitation. Similarly, in rare cases where the levels of emotional disturbance in response to injury are extreme, suicidal behavior may result.

Although some athletes may seek out social support from others for assistance in dealing with their injuries, others may choose to withdraw socially and cope with their situation on their own. This emotion/ behaviour syndrome can be viewed as a three-element, repeating cycle comprised of distress, denial and a determination to cope (Heil, 1993). Distress and denial tend to peak in the early stages of rehabilitation and then give way to determined coping in the later stages. However, in the later stages of recovery, transient periods of distress/denial can be expected to occur in response to specific difficulties like pain or lack of progress. Particularly in the case of a serious injury, the athlete is likely to respond initially with shock, denial and an overly-optimistic belief that the injury is less serious than it appears (Grove, 1993). From a cognitive standpoint, adherence rates tend to be higher when athletes ascribe their recovery to factors within their control, view themselves as able to cope with their injuries, set rehabilitation goals, maintain positive self-talk, and use mental imagery. Athletes experiencing emotional disturbance tend to adhere less well to their injury rehabilitation programs than those without such difficulties. The experience of previous injuries, the trauma associated with them and the success of prior rehabilitation efforts will undoubtedly influence the nature of post-injury stress. There is evidence that general life stress delays recovery from minor illness and injury among athletes and it is reasonable to assume that daily 'hassle' occurring during rehabilitation may produce similar effects (Gordon *et al.*, 1991; Ford & Gordon, 1993). Sanderson (1977) notes that players are likely to react negatively if they feel that their injury occurred as a result of a teammate's illegal or unacceptable behaviour. Similarly, the severity of the injury in terms of pain, persistence and disruption of normal activities as well as the timing of the injury within the season and the athlete's career has also been noted as an important determinant of the response to injury. **Anxiety** has been used in a global way to describe how performers respond to the demands within stressful situations (Tenenbawn,etal 2007).

Trait and State Anxiety: Trait anxiety is a relatively enduring disposition that causes people at high end of continuum to view a wide range of non dangerous circumstances as threatening. Stat anxiety is the negative emotion of apprehensiveness and tension experienced threatening situations.

Cognitive Anxiety: Cognitive anxiety responses are the thoughts athletes experience in stressful situations such as worries, negative expectations, and apprehensions about performance (i.e., athletes' mental response to stressors). It is characterized by worrying thoughts and negative expectations about performance, self-evaluation and the evaluations of others. Somatic anxiety relates to perceptions of our bodily state, such as awareness of a pounding heart or dry mouth.

Anxiety Measurement: The most used method of measuring anxiety in sport is the self-report questionnaire. It has been used to measure both trait and state anxiety. The most used measure of trait anxiety is the Sport Anxiety Scale (SAS). The most widely used measure of state anxiety is the CSAI-2.

Anxiety Direction: Some researchers have claimed that anxiety has direction as well as intensity, leading to the somewhat strange notion of positive as well as negative anxiety. It is possible that the term directional anxiety is a misnomer and that the directional scale measures outcome expectations.

Pain-Related Anxiety

Pain can be a source of anxiety (McCraken, Zayfert, & Gross, 1994). Most often studied in medical research, pain-related anxiety is apparent in numerous facets of life (McCraken et al., 1994, Bishop, Holm, Borowiak & Wilson, 2001; McNeil et al., 2001). The term, pain-related anxiety, refers to the summation of “the cognitive, overt behavioural and physiological responses customarily labelled as anxiety, shown in response to pain or pain-related events” (McCraken & Gross, 1997). Pain-related anxiety results from a combination of cognitive, physiological and motivational processes (Asmundson, Vlaeyen & Crombez, 2004)

2.4 PSYCHOLOGICAL ASPECTS OF THE REHABILITATION PROCESS

Pain is essentially a psychophysical phenomenon, and a loss of functioning can be defined in terms of behaviors in which athletes are unable to engage. Psychological factors have been shown to affect the outcome of sport injury rehabilitation. When athletes sustain injuries, the immediate focus is generally on physical dimensions of the injuries, such as the location, magnitude, and ramifications of the damage to body tissues. Nevertheless, from the occurrence of sport injuries onward, psychological factors are an integral part of the rehabilitation process. For example, the pain and loss of physical functioning commonly experienced by athletes upon sustaining an injury have strong psychological components. According to the model, psychological factors affect and are affected by biological factors (e.g., tissue repair, circulation), social factors (e.g., social network, life stress), intermediate bio-psychological outcomes (e.g., range of motion, strength, pain), and rehabilitation outcomes (e.g., functional performance, readiness to return to sport). Of particular note, the outcomes on which the success of rehabilitation is largely judged are predominantly psychological or behavioral. Once athletes have adapted to their injury and learned to accept their incapacity, step towards rehabilitation must be determined. A concomitant mental and physical effort can be facilitated by the educational psychological strategies, namely communication skills and motivation techniques (Wiese and Weiss 1987). Biofeedback training can also help athletes getting into a state of homeostasis (Strack and Gevirtz, 2011) which is a state of emotional and physiological coherence similar to the “adaptive stress response” that decreases the risk of sustaining injury (Williams and Andersen, 1998).

2.4.1 Communication Skills

Professionals can facilitate rehabilitation by providing detailed information about all aspects of the athlete's injury (Weiss & Troxell, 1986). A detailed description of the nature of the injury and the prescribed rehabilitation programme and a programme rationale should be provided, together with realistic expectations concerning pain, physical and psychological setbacks, lack of mobility, and inconvenience. An emphasis on positive attitude and persistence during rehabilitation must be communicated.

2.4.2 Motivation Techniques

We can distinguish intrinsic and extrinsic motives by looking at the process of motivation. The motives and needs of players are guided by two basic factors, the hope of success and fear of failure with experience generally showing that the former plays the major role in motivating players. Every player has a dream some players pursue their dreams and expect to achieve them through renewed hard work and dedication. Obstacles are seen as a challenge and each setback as a call for more effort to improve and overcome these problems. This type of player is intrinsically self-motivated as their desire to succeed comes from within themselves. Generally, highly motivated players only need decent objectives, environment and ability to concentrate as well as good technical, tactical and physical coaching for success. For injured players, convincing and motivating to believe they can succeed and secondly only hard work will lead to success help for fast rehabilitation.

2.4.3 Motivating the Team/Player

There is no perfect method for motivating players as this changes from individual to individual and can depend on the current situation, like team's position in the league. Various ways used to motivate and sustain motivation: Goal setting is useful as it allows players to have something to aim at through a predefined plan to compare their progress at different steps over a period of time (Brewer 2009).

2.4.3.1 Goal Setting Goal-Setting Guidelines

1. Help develop management skills that are transferable between rehabilitation situations.
2. Help athletes establish rehabilitation schedules.
3. Provide opportunities for self-evaluation and recording.
4. Involve athletes in decision making.

Process of goal setting should include goals to follow the prescribed treatment. Protocol (e.g. attendance at treatment sessions, perseverance with homework exercises) and goals for incorporating psychological strategies (e.g. relaxation, imagery, self-talk) within the rehabilitation programme. The first step is to set realistic, specific and measurable goals, which should be written down by athletes and re-evaluated frequently. Daily, weekly and monthly goals need to be monitored and updated periodically as progress is recorded. Feedback to the athlete must be provided based upon objectively determined standards of achievement. The observable improvements should promote motivation as well as healing.

2.4.3.2 Relaxation

Many athletes seem to use Progressive Muscle Relaxation (PMR) which allows players to learn the difference between relaxation and tension. The player should lie comfortably, close eyes, breath easily, tense then relax all muscles and maintain a passive attitude. Deep muscle relaxation is another procedure often used. A player forces his attention onto his left leg for example and imagines it getting heavier and heavier and eventually letting it sink into the floor! Generally, relaxation should result in decreased heart rate, blood pressure, breathing rate and decreased body metabolism. A relaxed condition facilitates healing by moderating the sympathetic nervous system functions, which are usually activated by stressful situations and conditions. Relaxation therefore helps to conserve vital energy required to promote healing and fight discomfort and disease. Through regular use of relaxation skills, athletes can facilitate and perhaps accelerate their recovery from injury. Three techniques that could be employed are: progressive muscular relaxation (PMR); autogenic training; and biofeedback. PMR teaches injured athletes to recognize the build-up and release of tension in different muscle groups and is particularly applicable for dealing with pain experiences or sensations, and for preparing for treatment. Autogenic training works through self-suggestion and focuses on both physical relaxations, using sensations of warmth and heaviness, and mental relaxation in the form of visualization. In sports studies, the ability of subjects to control blood flow, alter skin temperature and procedure hot or cold sensations in different parts of the body has been attributed to autogenic training. Biofeedback can be incorporated into rehabilitation programmes to help individuals train and control their body reactions (Tenenbawn,etal 2007)

2.4.3.3 Imagery

It has been defined as "using all the senses to re-create or create an experience in the mind"(Tenenbawn,etal 2007). Successful athletes use imagery and visualization. Jack Nicklaus, one of the greatest golfers of all time, described in detail how he used imagery. This quotation provides an eloquent description of how he used imagery prior to every shot:

I never hit a shot, not even in practice, without having a very sharp, in-focus picture of it in my head. It's like a color movie. First, I "see" the ball where I want it to finish. . . . Then the scene quickly changes and I "see" the ball going there. . . . Then there is sort of a fade-out, and the next scene shows me making the kind of swing that will turn the images into reality. (Nicklaus, 1974, p. 79)

The 'imagination' can also be used to facilitate the rehabilitation process, particularly when used in conjunction with relaxation exercises. Emotive imagery helps athletes feel more positive about themselves and what they can achieve. By using imaginary scenes that the athlete recalls with pride and enthusiasm, for example feelings of pride in having recovered from previous injuries or setbacks, this technique boost confidence levels. The goal is not to deceive the athlete but rather to evoke positive, composed and calm feelings associated with memorable past experience (Brewer 2009).

2.4.3.4 Positive Self-Talk

In implementing cognitive restructuring techniques, mental skills consultants would first assist athletes in understanding the nature of their reactions to the stressor (e.g. pain associated with treatment). Athletes would then be shown how automatic and irrational thought processes could negatively affect responses to injury and rehabilitation. Next, athletes would be assisted in breaking down their responses into components and taught how and when to use both cognitive and behavioural coping strategies to deal with each component. Injured athletes can benefit enormously from learning a cognitive restructuring programme because they tend to dwell on negative and irrational thoughts and belief about themselves and their chances of recovery, particularly during long and painful periods of treatment (Rotella & Heyman, 1993).

2.4.5 Social Support

Social support networks can influence stress levels in athlete and involve a unique set of contributions from coaches, teammate's family and friends. While coaches and teammates provide technical support for athletes, they are generally not expected to provide as much emotional support as family and friends. Hardy and Crace (1991) have proposed eight distinguishable types of social support that injured athletes use during rehabilitation.

- Listening support -- behaviours that indicate people are listening without giving advice or being judgemental.
- Emotional comfort -behaviours that comfort individuals and indicate people care to them.
- Emotional challenge --behaviours that challenge the individual to evaluate their attitudes, values and feelings.
- Task appreciation -- behaviours that acknowledge individual efforts and express appreciation for the work that they do.
- Task challenge -- behaviour that prompts, encourages and challenges the individual to do more and achieve more.
- Reality confirmation -- behaviours by people with similar experiences, priorities, value and views that reassure the individual during times of stress or confusion and confirm perceptions and perspectives of the situation.
- Material assistance -- behaviours that provide the individual with financial assistance, products or gifts.
- Personal assistance -- behaviours that indicate a giving of time, skills, knowledge and/or expertise to help the individual accomplish tasks.

2.4.6 Self-Efficacy

A central factor in understanding the relationship between anxiety and the expectation of pain is an individual's self-efficacy for pain tolerance. Bandura (1997) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Self-efficacy affects an athlete's engagement choices, effort level, and perseverance and associated with increased likelihood to set Challenging goals (Bandura & Jourden, 1991). Specifically, given an adequate skill and sufficient motivation, performance will be determined by the extent to which a person believes in his or her competency to execute a

particular task. High self- efficacy has been associated with the activation of coping strategies, persistent coping with pain, and a reduction in arousal eliciting anticipations (Bandura, O'Leary, Taylor, Gauthier, & Gossard, 1987). In a study conducted on college students, Baker and Kirsh (1991) found that individuals with higher self-efficacy for coping with pain were better able to tolerate pain during a cold pressor test.

This study indicated that individuals who believed they were able to control the amount of pain had lower pain ratings than those in the control group. Research has also indicated that heightened self-efficacy to regulate pain intensity is associated with a higher threshold and tolerance for pain (Stevens, Ohlwein, & Catanzaro, 2000). Studies have also displayed a relationship between competitive anxiety and self-efficacy. One such study, conducted by Allen and Greenlees (2005), indicated that athletes who possessed a strong belief in their own personal capabilities to perform, and demonstrated high levels of self efficacy, displayed lower levels of both cognitive and somatic state anxiety prior to competition.

2.6 PSYCHOLOGICAL READINESS TO RETURN TO COMPETITION

In order to avoid a repeat of the injury and further loss of confidence in their performance, it is essential that injured athletes be fully consulted about their complete recovery and readiness to return to competition (Heil 1993). Physical recovery from injury can be determined objectively from the physical signs and symptoms of healing. However, psychological recovery is a highly subjective phenomenon and ultimately rest with the perceived confidence of injured athletes in meeting the physical demands of full competition.

Although little empirical evidence supports the contention that 'confidence' is significant to the athlete when deciding to return to competition (e.g. Gordon & Lindgren, 1990; Rotella & Heyman, 1993). Evidence suggests that athletes should only be allowed to return to competition when they themselves consider that they are both physically and mentally ready to do so.

2.9 THE PSYCHOLOGICAL ASPECTS OF INJURY IN SPORT

To achieve effective communication, professionals must become responsive listeners with athletes, who may require assistance in dealing with the emotional challenges posed by rehabilitation. While severely troubled or depressed athletes should be referred to licensed psychologists, preferably with sports science training. Body rehearsal is a second technique that facilitates healing, by using positive images. First, the athlete is given details of what has happened internally as a result of the injury, so that he/she can develop a clear picture of the internal damage caused by the injury. Next the intent of the rehabilitation programme is explained, which enables the athlete to imagine precisely what is happening internally during the healing process. Mastery rehearsal, in which physicians and physiotherapists explain in specific detail what must occur internally to effect healing, can also be used in concert with body rehearsal. Coping rehearsal, on the other hand, teaches athletes to anticipated problems in through the preparation of plans to deal with periods of anxiety worry and pain. Such preparation might also induce unnecessary anxiety on the part of some athletes who may find anxiety level over whelming; however, this technique is generally regarded as a realistic and valuable tool to learn and use. Finally, time projection is an imagery technique, which effectively distances

injured athletes from their current frustrations, inconveniences or pain. If athletes are taught to picture themselves 2 or 6 weeks in the future, they can attain some instant relief from their present experience. By planning ahead through time projection on a day-by-day/week-by-week basis, using a range of positive steps, athletes will learn to deal with current crises more effectively (Gordon & Lindgren, 1990; Rotella & Heyman, 1993).

3.0 CONCLUSION

Injured athletes treated with a comprehensive rehabilitation program that includes addressing issues that experience less stress. In relation to this studies have suggested the use of psychological strategies such as goal setting, positive self-statements, cognitive restructuring, and imagery/visualization is associated with faster recovery. These strategies may be helpful by reducing stress and increasing coping mechanisms and social support. However, rehabilitation may be affected by problematic emotional reactions, the most common of which are loss of identity, fear and anxiety, and a loss of confidence. The common attitude that 'if the body is ready the mind is also' must continue to be challenged, as an athlete's anxiety and fear and lack of confidence must be addressed and alleviated before he/she returns to competition and can make more informed decisions on complete.

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