

LEADER

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Sport psychology and concussion

Sport psychology and concussion: new impacts to explore

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In recent years, there has been great interest in examining the psychological effects of athletic injuries. This has also extended to interventions in which coping strategies have been suggested to enhance recovery. Concussive injuries, which are common to many sports, hold particular problems in this regard. For example, a concussed athlete may be prone to experience isolation, pain, anxiety, and disruption of daily life as a result of the injury. This may be a problem for individual sport athletes—for example, professional skiers—who do not have the support of team mates to help them through their rehabilitation and recovery, as well as team sport athletes whose team mates may inadvertently pressure them to return to play.

Besides the physical loss resulting from an injury, there may also be psychological distress. Commonly reported emotion responses resulting from athletic injury have included anger, denial, depression, distress, bargaining, shock, and guilt.¹⁻⁵ These are particularly seen in career ending injuries. Such emotional distress can negatively affect the athletes' recovery process.

“...concussed athletes in team sports seem to have fewer long term problems”

Injured athletes have also reported feelings of isolation and loneliness. Researchers found that athletes prevented from participating in their activity have lost contact with their team, coach, and friends.⁶⁻⁷ For example, Gould *et al*⁶ examined the emotional reactions of US national team skiers to season ending injuries and found that 66.6% cited lack of attention and isolation as a source of stress during their injury. In another study of injured athletes, Brewer *et al*² surveyed 43 sports medicine practitioners to discover side effects of psychological distress. These side effects included exercise addiction, weight control problems, family adjustment, and substance abuse. These problems have been reported individually

as well as being associated with depression and anxiety and have been shown to cause severe health complications.⁷

Injured athletes have reported different levels of satisfaction with the social support they have received after injury. In particular, team mates have been shown to have a greater affect on the emotional state of injured athletes than coaches or medical professionals.⁸ This leads one to speculate that individual sport athletes may experience different adjustment difficulties while recovering from a concussion. This may also suggest why concussed athletes in team sports seem to have fewer long term problems, such as persistent post-concussive symptoms. In an environment in which team mates are likely to have experienced similar injuries, there is a greater corporate memory of such injuries and hence more reassurance as to the likely recovery time frame and validation of subjective symptoms experienced by the injured athlete.

UNIQUENESS OF CONCUSSION INJURIES

A number of unique characteristics of concussion injuries exist. Firstly, a concussion is an “invisible injury”. This means there are no crutches, swelling, stitches, or other visual signs of the injury. This makes it very difficult for a casual observer to identify the athlete as injured. A second unique characteristic of concussion injuries is the overlap of post-concussive symptoms with psychological responses to injury. A third problem may be a loss of fitness (through loss of both aerobic and resistance training activity), particularly if the post-concussive symptoms persist. A fourth problem, unique to professional sport, is the relentless media commentary that typically occurs after injury. This increases pressure on injured athletes to regain their sporting place.

“...it is often not considered acceptable to spend prolonged time rehabilitating a concussion injury”

Another issue surrounding concussion injuries is the lack of acceptance or understanding of long term rehabilitation. Whereas it is often considered necessary to rehabilitate an orthopaedic injury for a number of months, it is often not considered acceptable to spend prolonged time rehabilitating a concussion injury. This may result in more anxiety and frustration for the athlete and coach. Finally, concussion injuries are unique because there is at present no standard intervention technique. For most other injuries, rehabilitative treatments are available—for example, physiotherapy, medication, exercise, surgery, etc. However, this is not the case for concussion injuries; the athlete may leave the doctor with either no specific management or at best a minimally structured treatment plan.

SOCIAL SUPPORT GROUPS

It is not uncommon for people who have experienced life events such as addiction, illness of a family member, injury, or a significant loss to have difficulty dealing with the stress and anxiety of their situation. As a result of the distress encountered, different methods of coping and psychological support have been developed. Throughout the last 20 years, the role of social support in dealing with disease has increased significantly.⁹ Support groups have been developed to educate, prevent isolation, and help in coping.¹⁰ Positive outcomes from support groups have been proven effective for sufferers of AIDS,¹¹⁻¹² cancer,¹³ obsessive compulsive disorder,¹⁴ and pregnancy loss,¹⁵ and families of critically ill patients.¹⁶ It has also been shown that general social support is beneficial for athletes suffering from injuries.¹⁷⁻¹⁸ A support group for injured athletes may also provide the same benefits as it has for non-athletic populations.

Intervention strategies and psychological rehabilitation techniques have included imagery, relaxation, modelling, goal setting, positive self talk, social support and support groups, pain management, simulation training, education, stress management, and cognitive reconstruction.⁵⁻¹⁹⁻²⁴ Social support and communication have been two most commonly suggested rehabilitation strategies. Lynch²² stressed the importance of the sport psychologist in encouraging athletes to discuss their experiences with others. These interactions were designed to help reduce the injured athlete's feelings of isolation and loneliness.

SOCIAL SUPPORT IN ATHLETIC INJURY REHABILITATION

Two distinct types of social support have been used during injury rehabilitation in

an athletic setting: support groups and peer modelling.^{4,5} Support groups for injured athletes have allowed injured athletes to come together to voice their concerns, share ideas about coping, learn vital performance enhancement strategies, and realise that they are not alone.⁴ The goal is that athletes will support one another both mentally and physically by helping deal with the demands of rehabilitation and not participating in their sport.²⁰

Numerous studies on non-athletic populations have been published showing the benefits of support groups in reducing anxiety, depression, and isolation and enhancing coping strategies.^{11-14,16} To date there have been very few academic sources that have addressed the use of support groups for athletic injury and only one for concussion.²⁰⁻²⁵ Granito *et al*²⁰ offered anecdotal support for an injured athlete support group programme, and Horton *et al*²⁵ attempted to determine if participation in social support groups could reduce negative psychological side effects in concussion. It was shown that participants in the experimental concussed group improved their mood state, reducing effects such as anger, confusion, frustration, anxiety, depression, and isolation.

Social support has also been proven to have a significant effect on rehabilitation adherence. Udry¹⁸ reported that the most discriminating factor for rehabilitation adherence was level of social support. Athletes who perceived social support for their rehabilitation had better rehabilitation adherence, higher levels of motivation, and adopted a goal mastery orientation towards their rehabilitation.¹⁸

SUMMARY

The use of sport psychology techniques in the management of concussion may assist in solving some of the real and very practical problems facing clinicians, namely certain aspects of the post-concussive syndrome and the influence of anxiety and other adverse psychological states, which in turn may impact on injury outcome. Techniques derived from other areas of psychology such as peer modelling may be successfully used in this setting.

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