Treating Mental Scar Tissue

This issue’s column focuses on the theme of low back pain, which almost everyone will experience sometime during their lifetime. Back pain is the second most common reason that employees in the United States miss work. Lumbar sprains and strains are responsible for most low back pain.

Because athletes use their backs in virtually every type of sport, they are vulnerable to low-back sprains and strains. Scar tissue can develop that also must be dealt with. Cluett suggests that the physical treatment and prognosis are similar for minor strains and sprains. Less attention, however, has been given to the mental treatment of back pain. In this column, we briefly describe the physical and psychological signs and symptoms of lumbar strains and sprains—most particularly how certain athletes might develop mental “scar tissue” and not be ready to return to practice and competition after a back injury even though they are physically ready—and some things athletic trainers can do to help.

Physical Signs and Symptoms of Lumbar Injuries

Cluett contends that when people experience a lumbar injury they are most often doing an activity that places their back at risk, usually involving sudden forceful movements, twisting of the back in an unusual way, or lifting a heavy object. The most common precursors of lumbar injury are “poor conditioning, obesity, smoking, and improper use/lifting technique.” For athletes, however, adolescent athletes in particular, back injuries occur because their growth plates, back muscles, and ligaments are not fully developed. Repetitive trauma, bending, twisting, and stress, especially during long days of training, increase injury risk because fatigued muscles cannot fully protect the back. Other precursors include a combination of tight hamstrings and weak abdominal muscles and using improper technique. Activities in which an athlete is airborne and then hits a hard surface (such as diving, gymnastics, or pole vaulting) create the prototypical conditions for back injuries. Also implicated are football blocks, wrestling takedowns, and heavy weight-training maneuvers.
Psychological Signs and Symptoms of Mental Scar Tissue

Williams, Rotella, and Heyman\(^3\) suggest that some athletes, even though they are physically ready to return to play after rehab, are not psychologically ready. Mental scar tissue can build up, particularly related to fear and anxiety the athletes have about

- Reinjury of the same body part
- Injury of another body part
- Decreased confidence resulting in temporarily decreased performance
- Decreased confidence resulting in permanently decreased performance
- Depression, leading to decreased motivation for return to competition\(^4\)

Some coaches inadvertently make athletes feel as though such fears are unwarranted and “unathlete-like.” In fact, Williams et al.\(^3\) point out the potentially dangerous attitudes athletes are sometimes forced to embrace during physical rehabilitation, including “act tough and always give 110%” and “injured athletes are worthless.”\(^3\)(p418) These authors suggest that when athletes are encouraged to try to give their all on the playing field, they sometimes get the false impression that acting tough means going to extremes—both in and outside of rehabilitation. If this happens, athletes might push themselves past their limits in an effort to avoid being labeled worthless by the coaching staff.

What Athletic Trainers Can Do to Break up Mental Scar Tissue

One way to help athletes break up their mental scar tissue is to treat them like whole people, not just injured athletes or “the back injury.” Danish (as cited in Williams et al.\(^3\)) recommends several models and techniques for helping professionals who are trying to assist athletes in the mental recovery process. In the remainder of this column, we focus briefly on one of those models—the crisis-intervention model—and one of those techniques—body rehearsal.

Crisis-Intervention Model

Williams et al. describe the crisis-intervention model as “a short-term intervention method most often used when individuals’ coping abilities are overwhelmed or when others recognize that those who are injured are not aware of the extent to which their normal patterns have been impaired or overwhelmed.”\(^3\)(p419) This is particularly true for athletes whose injuries are sudden, moderate to severe, and painful, as is the case with many back injuries. The focus of the crisis-intervention model is to get athletes through the initial crisis until some type of long-term assistance can be established or their “normal” coping abilities have returned. Although crisis intervention requires completing a course that lasts 15–50 hr (and can often be found in one’s hometown at a crisis center), the results can be worth it. Athletes often perceive injuries as major crises, their fears appear never-ending, and their emotions are often haphazard and frightening whenever they think about the injury and their future. With the appropriate knowledge of such reactions, resultant psychological issues can be avoided.\(^3\)

Body-Rehearsal Imagery

One of the major psychological techniques advocated by Danish (as cited in Williams et al.\(^3\)) is imagery. A particular type of imagery that can be used to assist athletes in the recovery process is body rehearsal. With this technique, athletes are instructed to imagine internally what their injured back muscles, bones, and ligaments are doing during rehab. In order for this type of imagery to be effective, athletes must be shown an actual healthy anatomical model or detailed color picture of the body part involved in the injury, in this case the low back. Athletes can then be asked to imagine in as much detail and color as possible the body part healing (i.e., knitting back together in the case of bones, getting rid of waste products in the case of fluid buildup, or the breaking up of scar tissue in the case of surgery). An effective way to use this technique is for the athletic trainer to work together with a sport-psychology consultant to provide anatomical models and images of what the healthy body part should look like. By practicing body rehearsal, athletes can begin to feel a greater sense of control over their rehab, an increased sense of competence, increased motivation to return to sport, and a diminished fear of the unknown.

Summary

In summary, the body and mind are synergistically related, so when one experiences scar tissue, the other